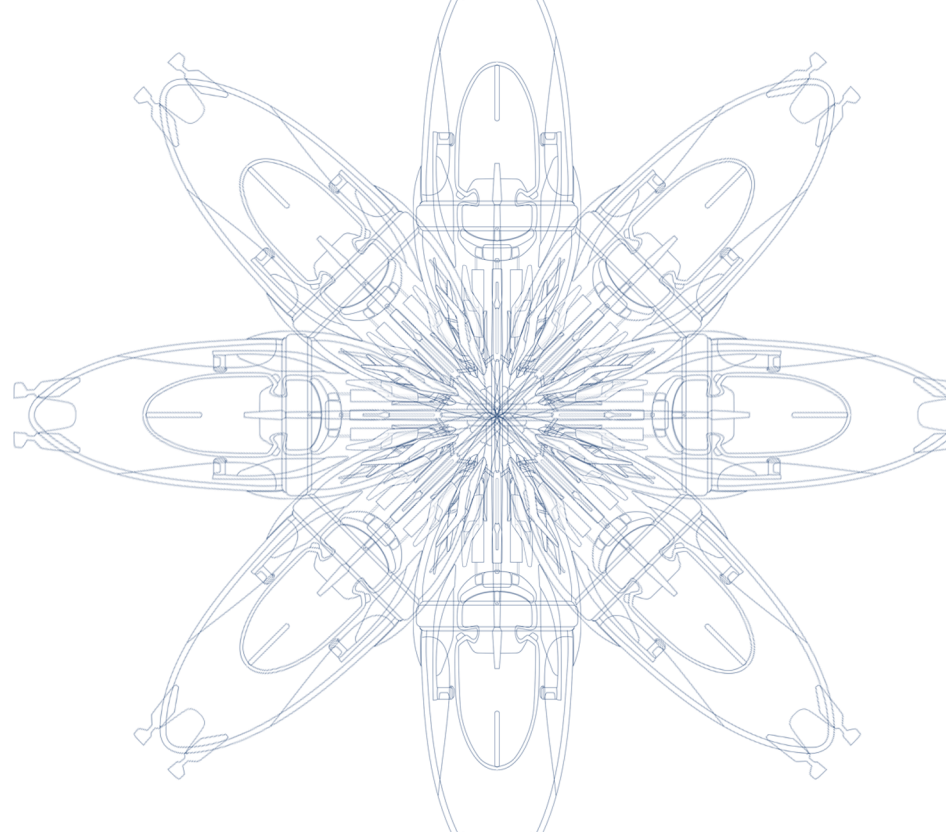


Kristian Talvitie: 2019
Bugatti AOS - 2050 concept:
future driving experience



Bugatti AOS - 2050 konsepti:
tulevaisuuden ajokokemus
Lahden ammattikorkeakoulu
Muotoiluinstituutti
Muotoilun koulutusohjelma
Ajoneuvomuotoilu
Opinnäytetyö AMK
Kevät 2019
Kristian Talvitie

Bugatti AOS - 2050 concept:
future driving experience
Lahti University of Applied sciences
Institute of Design
Design programme
Vehicle Design
Graduation project
Spring 2019
Kristian Talvitie

Abstract

Our world is faster and more connected than ever. The line between the real world and virtual is thinner than ever. This world has many changing effects on human life and thinking. From an evolutionary perspective point we are at the beginning of drastic change. In this work my intention is to study what kind of experience the future customer of Bugatti needs and to develop concept based on that.

Keywords:

Future luxury
Future driving experience
Bugatti
Car interior

Tiivistelmä

Maailmamme on nopeampi ja yhdistyneempi kuin koskaan ennen. Raja todellisuuden ja virtuaalisen todellisuuden välillä ohenee. Tällaisella maailmalla on paljon muuttavia vaikutuksia ihmisen elämään ja ajattelutapaan. Evolutiivisesta näkökulmasta, olemme suuren muutoksen edessä. Tässä työssä tarkoitukseni on tutkia, millaisen kokemuksen tulevaisuuden Bugatti-käyttäjä tarvitsee ja kehittää sen tiedon pohjalta konsepti.

Avainsanat:

Tulevaisuuden ylellisyys
Tulevaisuuden ajokokemus
Bugatti
Auton sisustus

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1. Context

1.1 Modern world

We live in a highly digitalized and automatized world today. Ever bigger part of our daily life is moving into digital form. It's hard to escape this digital wave, since almost every private or public services are connected to the internet at some level. The number of IoT-products is growing every day and soon even your chair might be connected to the internet. The screen times have evolved highly recently and at current rate we spend 11 years of our life watching screens. We have created a parallel world on which we are more dependent and without what it's hard to imagine life. This world treats us with massive amount of stimulus, rapid connections and opportunities.



http://www.fubiz.net/en/2016/08/19/neon-lights-in-tokyo-by-xavier-portela/?utm_content=buffer4e36e&utm_medium=social&utm_source=pinterest.com&utm_campaign=buffer

1.2 Concerns

In recent years many scientists have started discussing downsides of this digitalization. Biggest concerns are addictions, OCDs, sleep disorders, anxieties, memory problems and numerous other mental and physical disorders. These disorders have always been around. Although scientist have a lot of evidence how rising amount of these phenomena is linked to constantly seeing unrealistic images, distracting notifications and multitasking.

However, the Internet itself as an invention is quite young and often new inventions are not fully understood and utilized in the best manner. “It is very common for humans to develop things with the best of intentions that have unintended, negative consequences” Justin Rosenstein, the creator of the Facebook ‘like’ button. It takes time to get more knowledge on different impacts of the invention to the environment and its user and get rid of the negative ones. There have been already such movements and some of the companies have taken the first steps for a more human friendly approach.

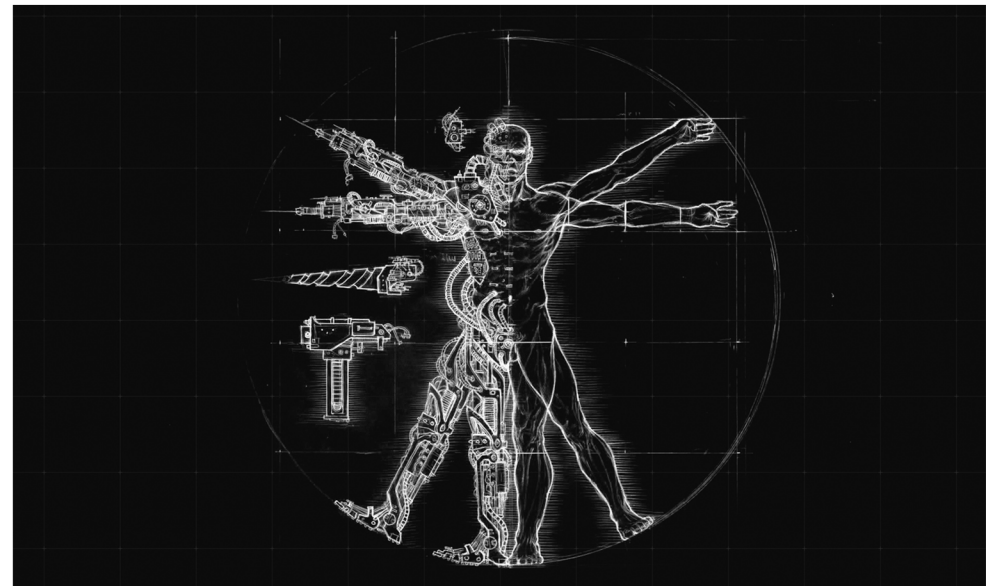


<https://www.forbes.com/sites/keithwagstaff/2016/02/28/are-your-kids-addicted-to-their-phones-screenagers-wants-to-help/>

1.3 No turning back

Despite concerned scientists, it is undeniable to say that the Internet is here to stay and it's just first step for human's limitless possibilities. It's hard to prevent this change, because the benefits outperform the disadvantages and the curious human mind craves to see its possibilities. It's a fact that human beings will have drastic lifestyle and behavioral changes in the next decades, and this wouldn't be at all the first time. Human history has had many events in the past, which have left us little bit different each time.

Plato once criticized shallowness and narrow-mindedness of its time groundbreaking invention: literacy. However, without literacy we wouldn't be at this point. In terms of intellectuality our predecessors were much shallower than our generation according to. Purely relying on spoken word, they without denial were much more poetic, but had difficulties to understand complex and abstract concepts. Written word liberated us once from the limits of individual's mind and made possible such things as laws, accountancy, contracts and mathematics. Hereby I say, that Internet and its power of change is just an inevitable part of our evolution.

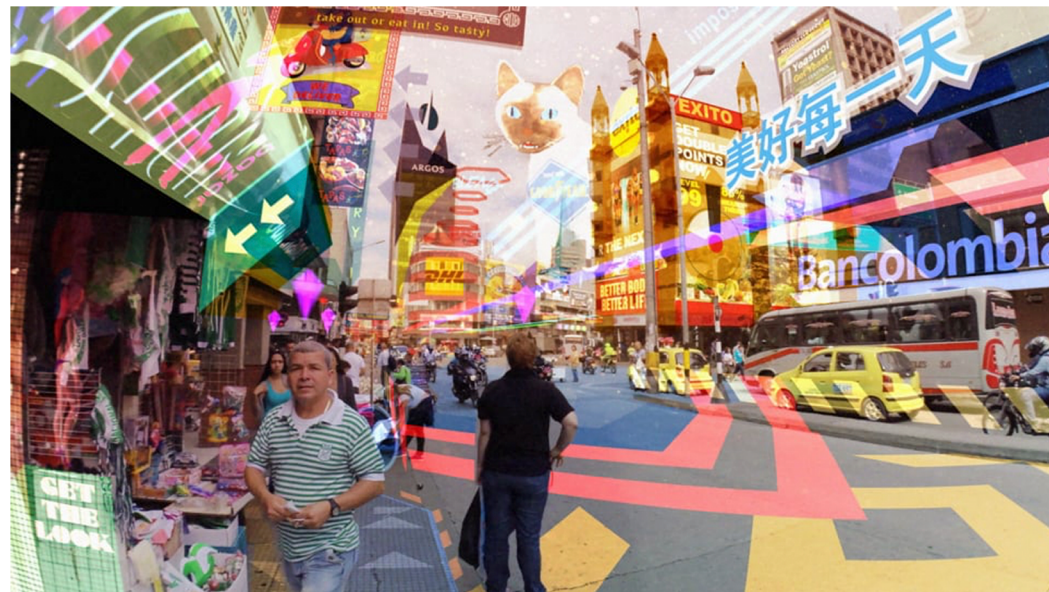


<http://www.kaleidoscopeurope.net/top-5-transhumanist-technologies/>

2.Future forecast

2.1 Stimulating world

The World is becoming faster and more stimulating than ever, since the race for our attention grows on a daily basis. Companies try to come up with the trickiest ways to draw our attention. Every new product or service has to outdo its predecessor or competitor. This competitiveness is a natural human trait and it leads to better technologies and inventions. Although it is an endless vicious circle, since our brain yearns for novelty. The problem with the novel experience is that it has to be powerful and unpredictable enough. Unpredictability is what creates new pathways in your brain, leaving you impressed by experience. But with enough of repetitions with that particular event you start to seek for the new one. This is very natural and well-known learning mechanism of human brain. That is to say, more stimulus is needed every time. This leads us to even more overwhelming and odd future in the eyes of modern human. It is said that if we'd take a person from our time and teleported them to 50 years from now, he or she would go insane.



<https://vimeo.com/166807261>

2.2 Creative society

I have mentioned already many times that we are at the beginning of big changes. Never before in human history we have had such amount of knowledge or such versatile tools in reach of our hands. There are already some indicators of what the future might behold. Constantly being in alerted state by our environment, we are about to abandon our calm and concentrated linear thinking mind. With linear thinking I mean having thoughts in logical order. For example: C comes after B, and A comes before B. However, this kind of thinking process might be very challenging in modern environment where your attention is constantly being drawn by bright primary colors, rapid link to link browsing and briefly checking texts. No wonder our attention span has dropped in recent years from 12 seconds to 8 seconds, which is lower than the goldfish has.

By everything I have mentioned before one might arise the question whether we are becoming dumber? If the criteria of being smart is memorizing Pi-number and sitting still while looking far into distance patiently, then the answer is yes. However, in visually and symbolically based society our brain has developed something unutterably new: the excellent comprehension of complex abstract patterns. This is apparent from the constantly rising IQ-levels. Namely, this is what IQ-tests test - connecting random dots and patterns. In other words, we are becoming more abstractly and scientifically thinking beings, and that is the

modern definition of smartness.

We are trading in our calm and consistent mind to a mind which has to incorporate as much information as possible in a short and discrete snippets. This kind of mind has perfectly adapted to the world where hardcore competitiveness requires you to constantly come up with the fresh ideas and with the out-of-the-box thinking. It comes not as surprise that such overwhelming and stressful place like Tokyo, is the home of the most odd and unseen human concepts. We are becoming the creative society.



<https://catracalivre.com.br/viagem-livre/dicas-importantes-para-quem-deseja-conhecer-o-japao/>

3. Research

3.1 Why did I choose Bugatti?

I chose Bugatti as my brand because I thought it would be an interesting challenge to analyze its future in a digitalized and automatized world. Biggest questions were how I could preserve Bugatti's mastery of handcraft and engineering in the world where internal combustion engines are no longer relevant. The most fundamental points on which I had to concentrate on, were vehicle's giving all-encompassing and elegant ride experience, despite of the fact that traffic might be fully automatized by the 2050 in some regions. Driving or the driving experience had to be preserved as a number one priority, without compromising future customer needs of super connectivity. My task was to incorporate these two contrasting qualities into one package, however with the clear distinction where user has the power of decision making. Namely, the power of decision making is what Bugatti buyer seeks from its product.

WHY AOS?

AOS is the abbreviation of Age of Stimulus



<https://www.carmag.co.za/news/industry-news/heres-how-long-it-takes-to-build-a-bugatti-chiron/>



<https://www.bugatti.com/chiron/>

3.2 Brief History

Bugatti was established by Ettore Bugatti in Molsheim, (then Germany) now France in 1909. Bugatti is very known for its legendary W16-engines, which Ettore designed for France during the WWI by building the double V8-engine for planes.

Ettore Bugatti was born into an artistic family with Italian roots, which was very inspired by architecture, sculpture and design.

Bugatti's creations are seen as engineering compositions turned into a form of art striving for perfection, rather than ordinary cars. Bugatti has always been a brand whose models are based on both revolutionary motorsport technology concepts and distinctive artistry.



<https://autoweek.com/article/car-life/mullin-bugatti-type-57sc-atlantic-best-best>

<https://autoweek.com/article/car-life/mullin-bugatti-type-57sc-atlantic-best-best>

3.3 Current trend

Electric cars are becoming more prominent, new car companies have started to name themselves as tech-companies rather than a regular car-companies. The best example of this is start-up company Byton. The advantage of electric cars is that they can update the performance and fix the problems only by updating the software. The software-oriented approach has also made the screens a crucial part of the user interface. In the past ten years screens have gotten bigger by every model. Byton has gone the most radical by making the dashboard wide screen and one screen can even be found on the steering wheel.

Although at the cost of automatization and digitalization many analog tools which are important for human senses have disappeared. Partly this has been quite necessary and positive change in such overwhelming world. However recent trends have sometimes overlooked the need of human sensory response and pushed some objects to incomprehensible form. In pictures you can see few examples of overly minimized design pieces, whose functions are unknown until one is being instructed.

It's hard to understand the functions of these examples:



<https://lemanoosh.com/app/uploads/PGD-Tech4Home-Modu-02-1.jpg>



<https://lemanoosh.com/app/uploads/bkid-Pedora-03-1.jpg>



<https://www.byton.com/m-byte-concept>

3.4 Future luxury

Some of the car makers have noticed people's growing awareness of the downside of screens and those companies have tried to make them more inconspicuous. Not only that makes Luxury buyers prefer screen-free options. As screens become more mainstream, they are not considered as exclusive as before. Designers have started to think what's beyond the regular screens and some of them have come up with interesting solutions.

One example of this thinking is seen in BMW's Vision Next concept, where the user interface is being projected in the fabrics of interior. This approach gives a more sensory fulfilling and natural touch to user experience. Eventually this method will be also applied into mainstream production in the future, making current screen hype just a passing trend.



<https://i.pinimg.com/originals/63/d9/be/63d9bede6cbfceab18c12bf1c9d58a7a.jpg>



<https://www.carmagazine.co.uk/car-news/motor-shows-events/tokyo/2017/mazda-visio-coupe-at-2017-tokyo-motor-show/>

3.5 Timeless

Usually highly exclusive brands rely on timeless design. The reason behind it is that they ensure the long lifecycle of a product being always beautiful. I examined some of the significant inspiration sources to me and noticed some universal similarities. What provided timelessness in these examples were usually natural friendly forms with fractal-like compositions. With fractality I mean an object repeating its composition from whatever distance it is observed. My intention was to abandon artificial feeling induced by time's social trends and rely purely on natural traits. This sort of product had to be visually sustainable, comprehensible and lastly but importantly democratic. Its purpose wasn't to manifest /declare divinity of human being over nature. Instead, its beauty had to be comprehensible for every viewer despite of their background.

However, I couldn't exclude objective beauty preference of human beings, which I accept, since the concept of beauty is rooted to our environmental and societal qualities. Although I wanted to dig under that complex concept of beauty and rely on the most primal and instinctive level.

I believe that some of the products of modernity are trying too hard to notify about its creator with radical and shocking executions to human eye. This approach encourages us to egocentric behavior with the aspiration to be extremely unique and distinctive from the group. It's hard to reach a sustainable

development in such world where we don't have mutual understanding. Despite my previous claims and pursuit to attain a timeless piece of design, I do acknowledge that on the subconscious level, spirit of the time will have the implications on my final result.



<https://www.mismo.dk/blogs/stories/understanding-fractals>



https://upload.wikimedia.org/wikipedia/commons/thumb/5/55/-Tour_Saint-Jacques_BLS.jpg/1500px-Tour_Saint-Jacques_BLS.jpg



<https://carnet-aux-petites-chose.fr/decouvrir-la-fondation-louis-vuitton-par-franck-gehry-paris-16/>

3.6 User research

As I mentioned before, a Bugatti customer is usually a person in a high position who wants a very personal experience. In this context it is the decision making between reality and virtual reality.

At the moment there are already movements where the power of AI decision making is questioned. The initiators of these movements are usually run by the ex-developers of the most influential companies like Google and Facebook for instance. These people are often highly educated and wealthy people who have power to influence others. In the jumble of digital world many of them have abandoned the overwhelming and distracting platforms which produce more stress and have begun to value a more natural way of life. This doesn't apply only to this particular group, but the trend has generally reached mainstream public as well. Although with the current trend, I cannot draw a conclusion that the future generations will be as concerned as ours. Signs of this emerged in the survey I conducted in the beginning of the project. Children of today being future customers of tomorrow, I found it obvious to conduct survey in kindergartens.

I sent questionnaire to over 40 kindergartens with seven points asking, what changes they have noticed in children during past 15 years. Replies backed up some of my previous claims and indicated that the highly digitalized world has

had clear impact on children thinking and behavior. Some notable positive changes were an independent and quick information retrieval, and increased interest in very specific subjects. On the flipside it had negative side-effects such as short attention span, impatience, linguistic problems and poor social skills. During the concept development I had to take these changes into notion and translate even the bad ones into something usable.

3.7 Typical user of Bugatti

I read from one of the Jalponik article that average Bugatti user has 42 cars and two of them are Bugatti. To make conclusions out of this, it is very evident that typical user is usually extremely wealthy person with the hobby of collecting cars.

My task was to create something very collectible into the future and according to my research that had to be something which would emphasize mastery of handcraft. I believe that in the world with very automatized manufacturing process hand work will be very appreciated.

I took some examples of highly exclusive design pieces, which were also my inspirational source.



[https://commons.wikimedia.org/wiki/File:Fox_Classic_Car_Collection,_2008_\(06\).JPG](https://commons.wikimedia.org/wiki/File:Fox_Classic_Car_Collection,_2008_(06).JPG)



<https://www.instagram.com/p/BvwfRO7Dw56/>



<https://www.instagram.com/p/BsYCUV2nSC2/>

User 3.8

In my scenario the user is highly skilled and educated creator of the future world. Future being full of immersive temptations, it is crucial to be able to control the line between reality and virtual reality to a person at this level. I had to offer the possibility enjoying fruits of both worlds with sensational and elegant experiences, which would nourish his creativity.

- 46 years old
- Strasbourg
- Expert of human enhancement

I chose keywords based on my user research for the further development.

- Stimulating
- Versatile
- Rich experience

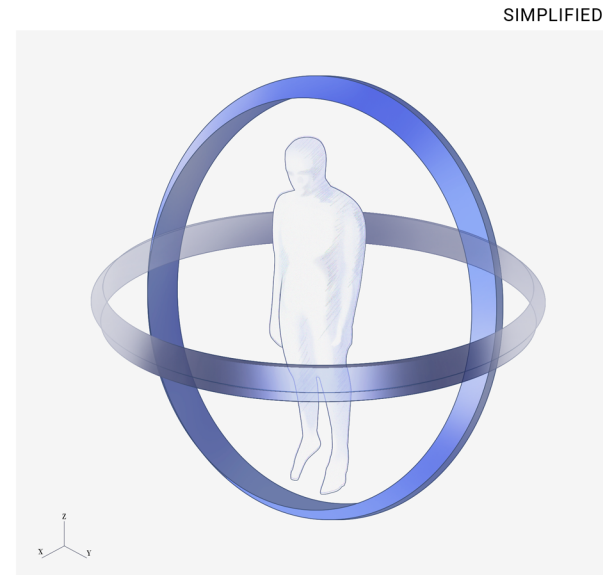
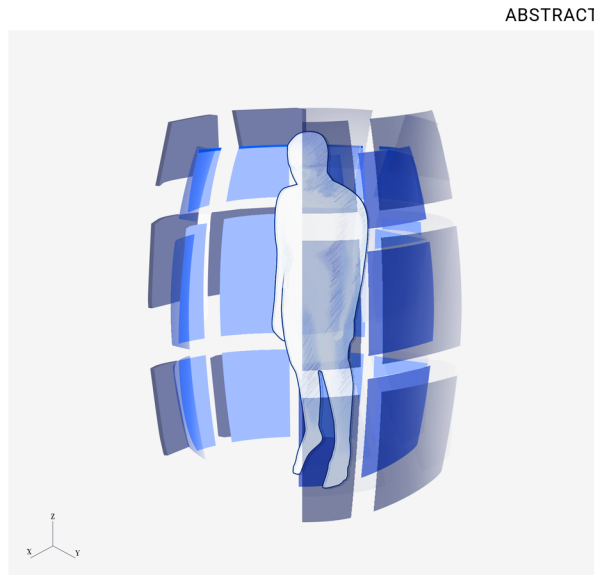


<https://www.classicdriver.com/en/article/watches/new-parmigiani-watch-harder-get-a-bugatti-chiron>

4.Ideas

4.1 Multitasking

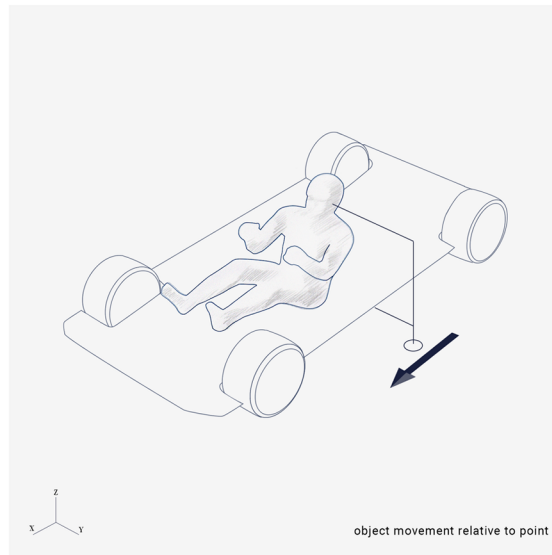
In future people will spend more time in virtual reality. The line between virtual reality and reality will be even more indistinguishable. With strong immersive experiences we will need something physical which will remind us of the reality. At first, I tried to illustrate reality and virtual reality around the human in simplified yet abstract form. After that, my intention was to divide these two worlds separate from each and translate them into simplified forms. I came up with the outcome where natural interaction is happening on horizontal scale and the virtual interaction is happening on vertical scale. This gave me opportunity to keep natural view free from distractions as a top priority with only few necessary virtual tools showing the basic driving information. Although, at the same time switching from the natural reality to virtual one, is done in very intuitive way by changing the relative position according to space.



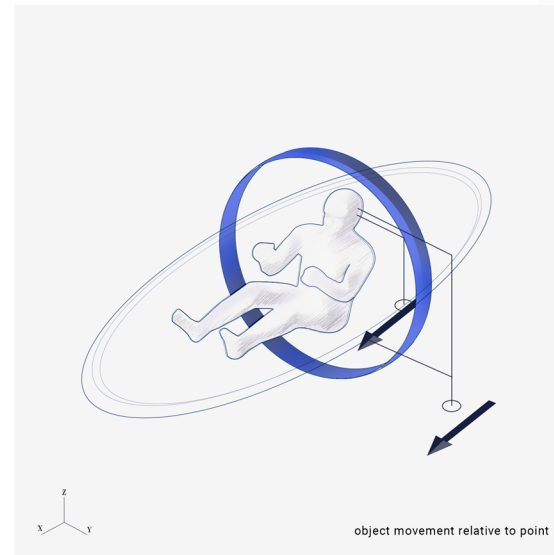
4.2 Movement

One way to make the driving experience even more stimulating was to change human relation to perceived environment and changes of velocity. I achieved this result by adding the extra movement inside of the vehicle which reflects and enhances its own forces in relation to surrounding environment. In normal ride conditions, there is barely any positional changes to human body, whereas in AOS they are happening all the time and in highlighted way.

REGULAR CAR



AOS



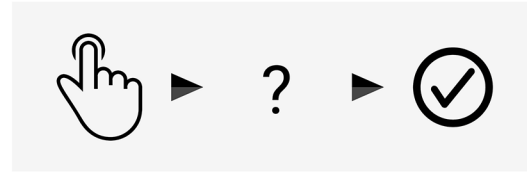
4.3 Causality

This was the last major method which I used for further concept development. In this method my intention was to emphasize clear cause and effect actions.

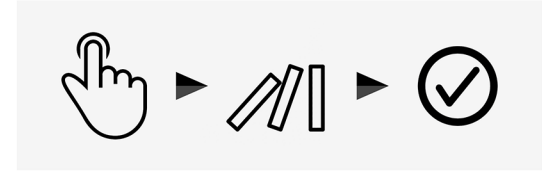
In a highly digitalized and automatized world people have used to quick and seamless actions by the touch of screen, while many don't know what kind of process the mechanism undergoes and what makes those actions possible. Thus, I decided to emphasize that part where the action happens between the cause and the effect. This makes the experience of using a certain object more comprehensible and interesting, therefore less forgettable.

The vehicle will have some parts switched on by movement of body which will tell the user that every action has its effects.

MODERN APPROACH



PROPOSAL



4.4 Visual stimulus

The final object had to provide calming and fulfilling visual experience. To attain this, form language had to be very light and vital. It had to have fractal elements to hypnotize the observer to the level where his or her heart rate would consequently drop. It was obvious decision to take strong references from nature.



<http://www.peakpx.com/491991/white-peahen>



<https://www.adventure-journal.com/2017/04/nature-soothing-might-fractals/>



<https://www.mismo.dk/blogs/stories/understanding-fractals>

INSPIRATION BOARD



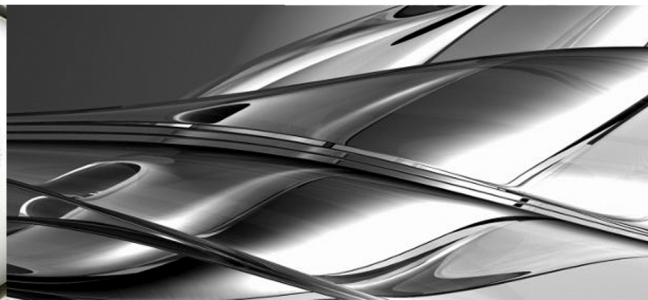
<https://www.instagram.com/p/BsYCUV2nSC2/>



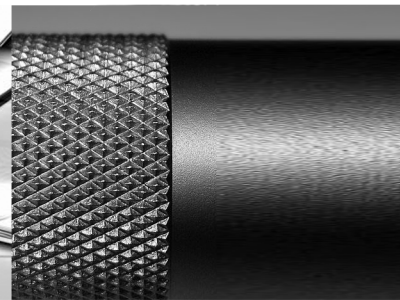
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<https://www.pinterest.fr/pin/326722147953414629/>



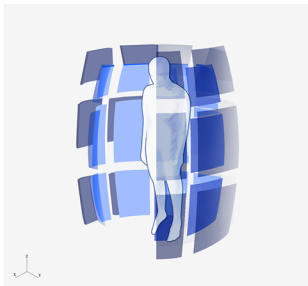
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5. Design research

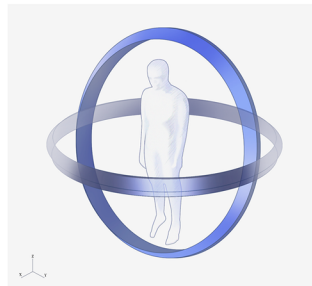
RESEARCH PHASE 1

ABSTRACT

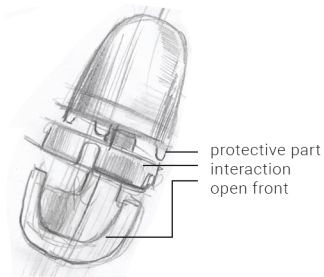
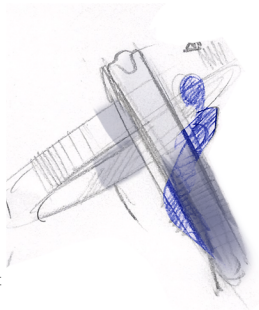
■ virtual reality
■ reality



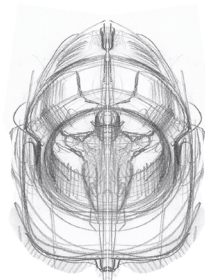
SIMPLIFIED



At the first stage I tried to separate interface and driving experience in different parts using the multitask idea.

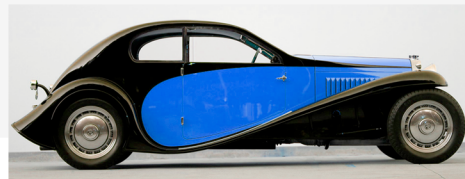


protective part
interaction
open front

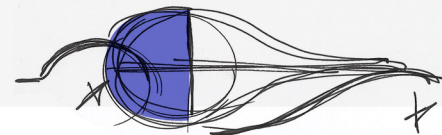


HERITAGE

in the beginning i tried to simplify classic lines of Bugatti



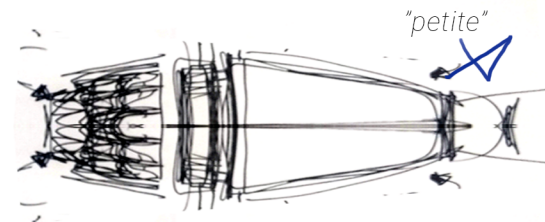
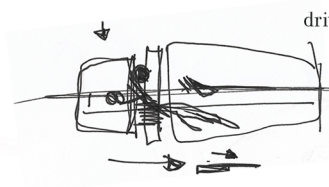
<https://rmsothebys.com/am12/amelia-island/lots/1930-bugatti-type-46-superprofile-coupe/1049587>



protective structure

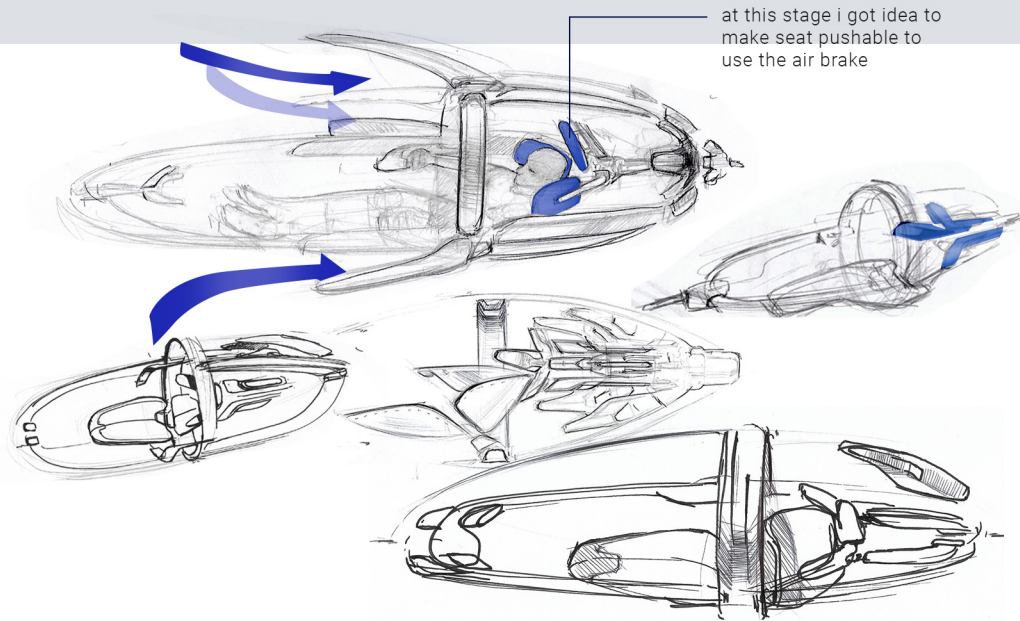


driving mode



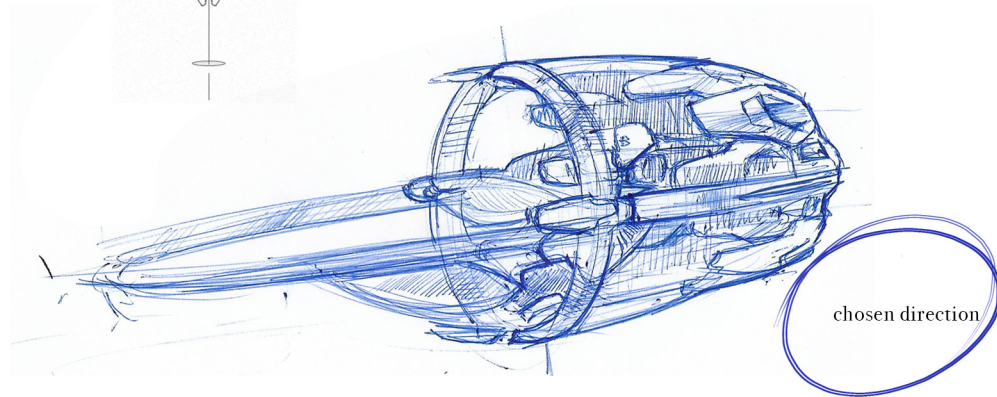
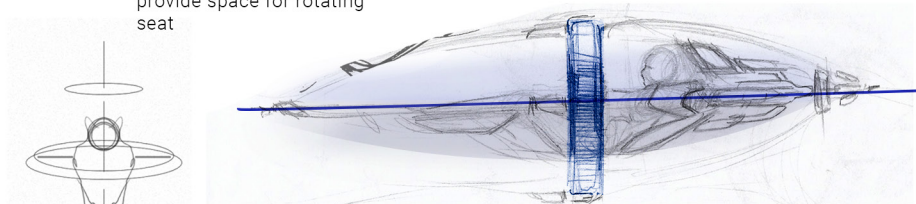
"petite"

RESEARCH PHASE 2



PLACING USER

in the center of structure to provide space for rotating seat



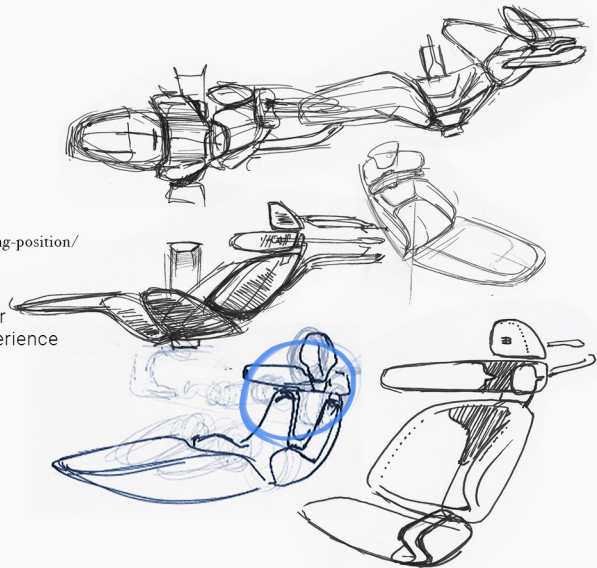
SEAT IDEATION



<http://elementalcars.co.uk/the-rpt/design/driving-position/>

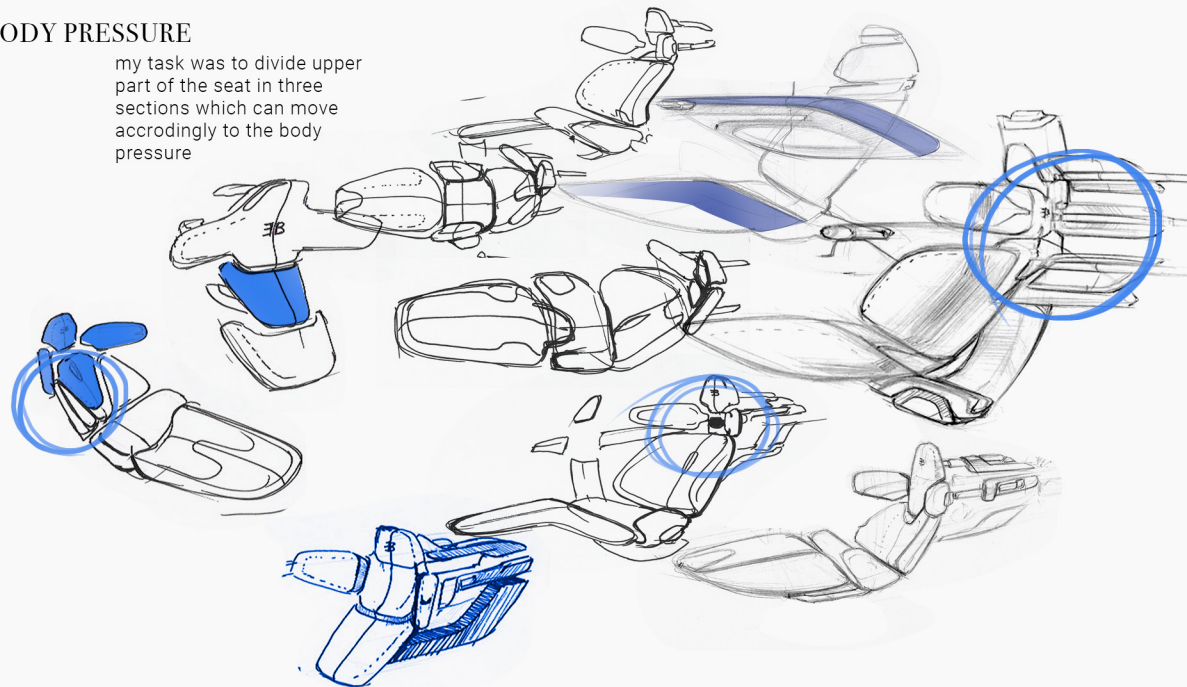
F1 SEAT

I took F1 seat as benchmark for research to provide robust experience under extreme ride conditions



BODY PRESSURE

my task was to divide upper part of the seat in three sections which can move accordingly to the body pressure

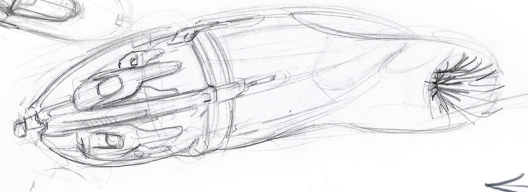
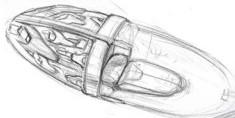
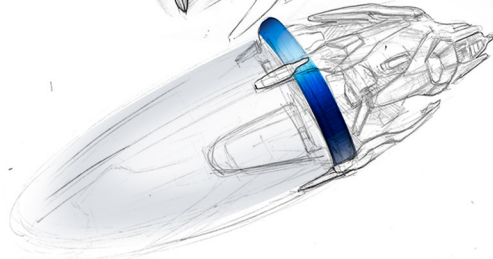
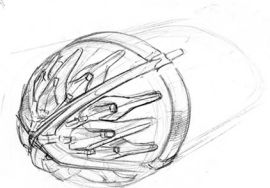
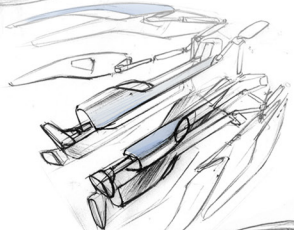
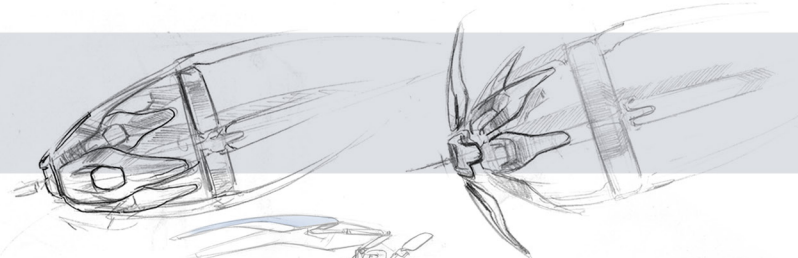


AIR BRAKE RESEARCH

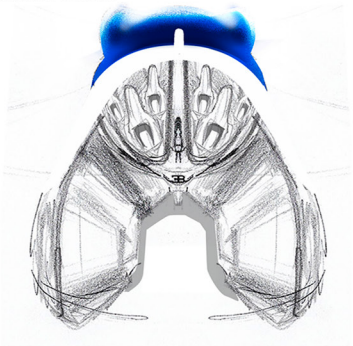


<https://brakebanzen.wordpress.com/2011/01/26/launched-pagani-huayra-for-real-this-time/>

I wanted design to be very mechanical, to emphasize the art of human craft. One way to do so was to incorporate air brakes and make the execution in very artistic way.



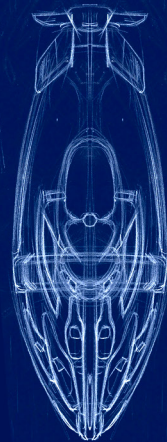
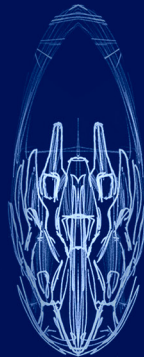
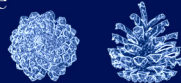
I tried to incorporate air brake structure in a theoretical exterior



FRACTAL ELEMENTS

inspiration https://fi.wikipedia.org/wiki/M%C3%A4nty#/media/File:Pinus_sylvestris_MHNT.BOT.2005.0.971.jpg

cone

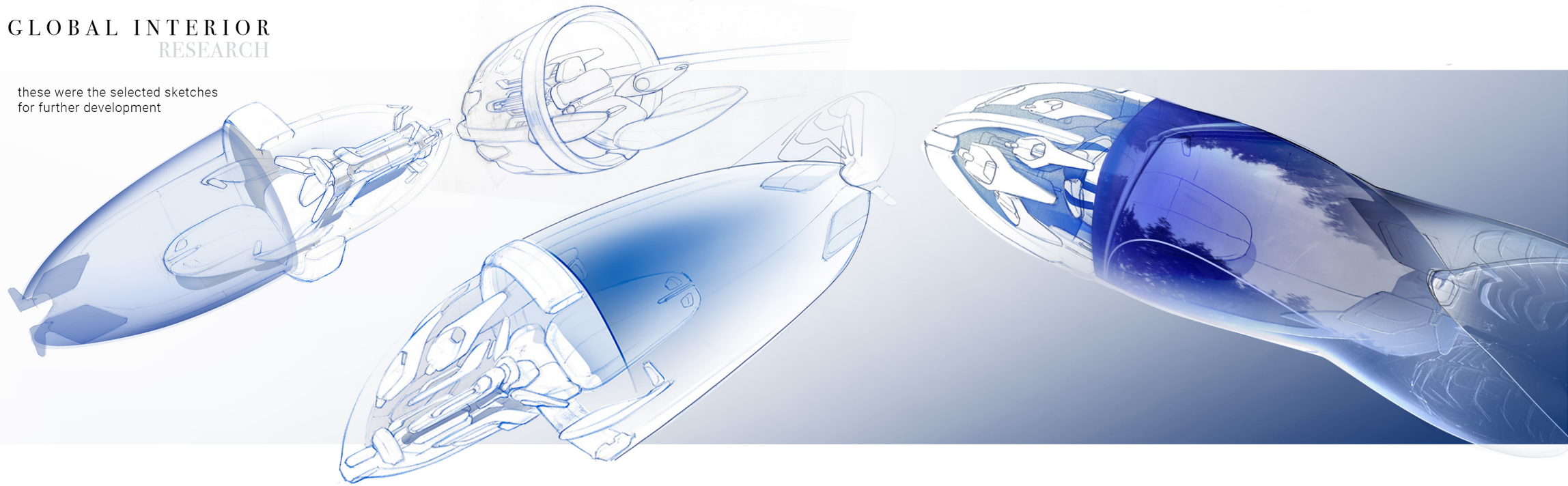


chosen directions



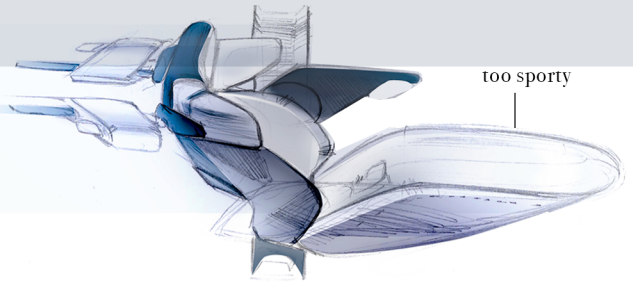
GLOBAL INTERIOR RESEARCH

these were the selected sketches
for further development



SEAT RESEARCH

my goal was to make sporty yet comfortable seat

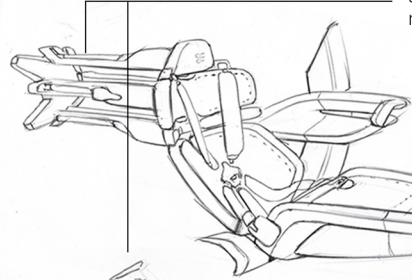
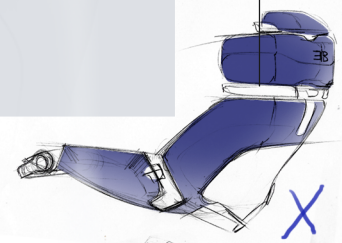


too sporty



comfort feeling

interesting character

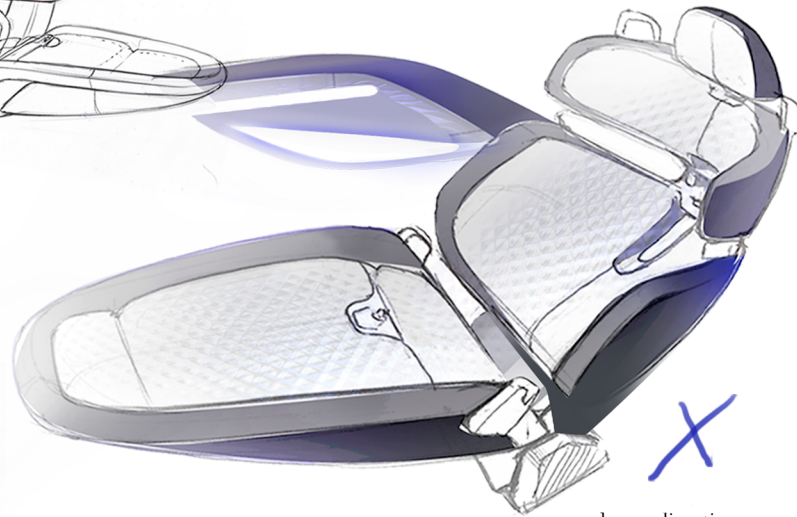
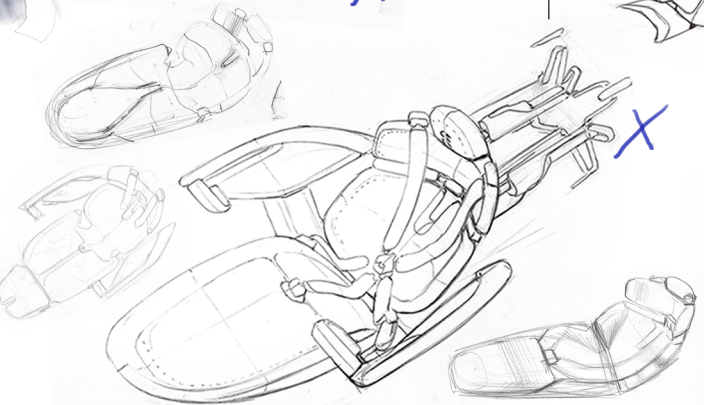
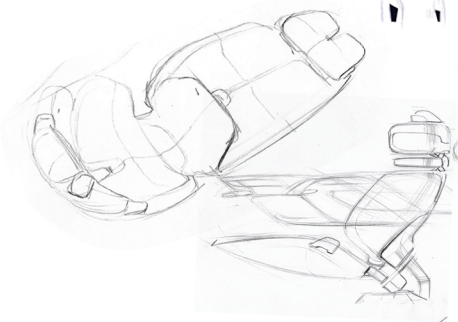


at this stage I tried to define air brake mechanism more clear

inspiration "BUG"

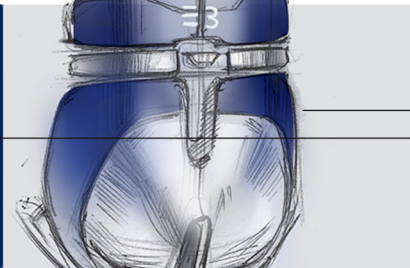
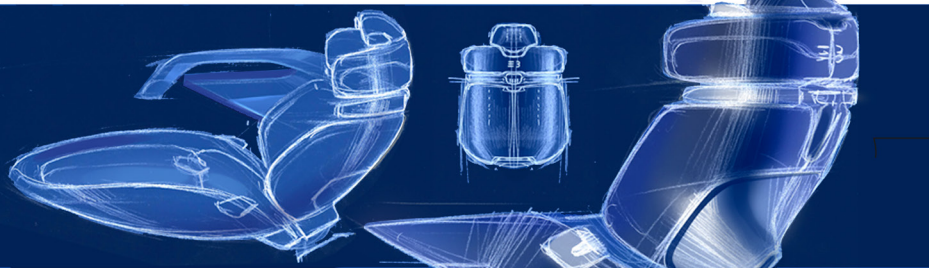


<https://www.oldschoollifestyle.fi/en/julistee/884-2035-copy-of-juliste-koppakuoriainen-35-x-50-cm.html>

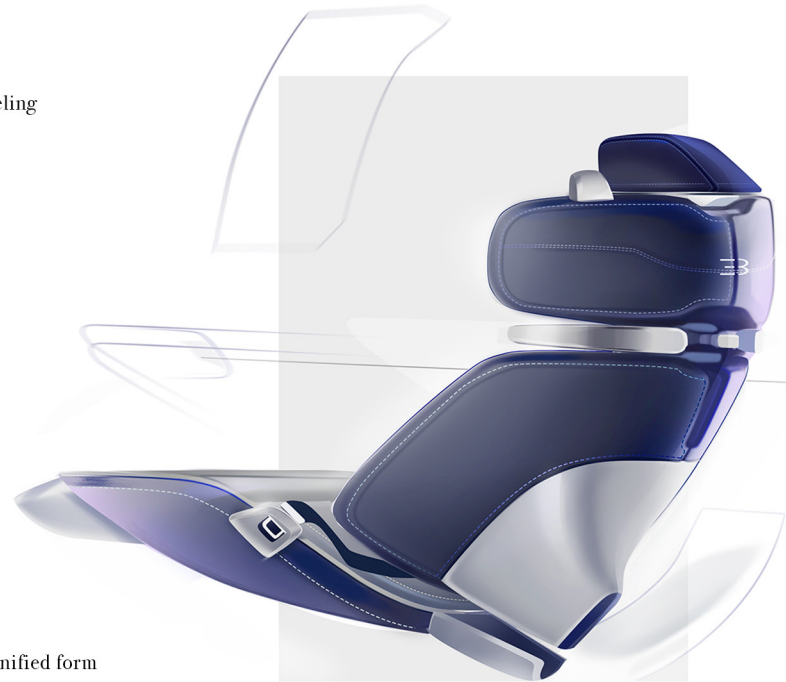


chosen direction

SELECTED DIRECTION

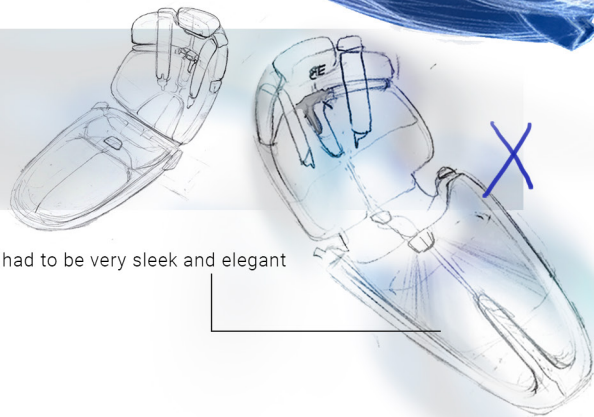
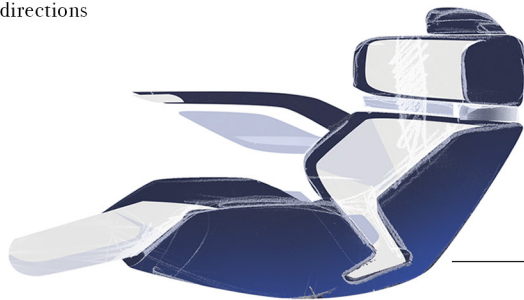


"BUG" feeling



unified form

X chosen directions



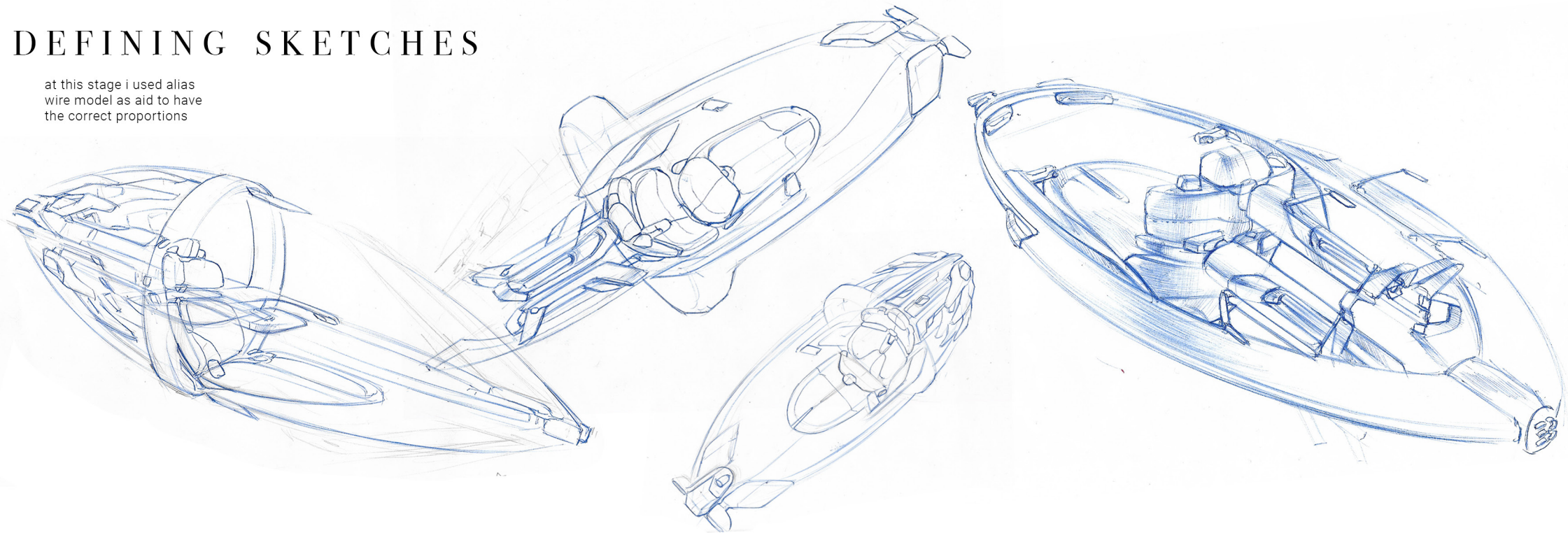
seat had to be very sleek and elegant



THE FINAL DESIGN

DEFINING SKETCHES

at this stage i used alias
wire model as aid to have
the correct proportions



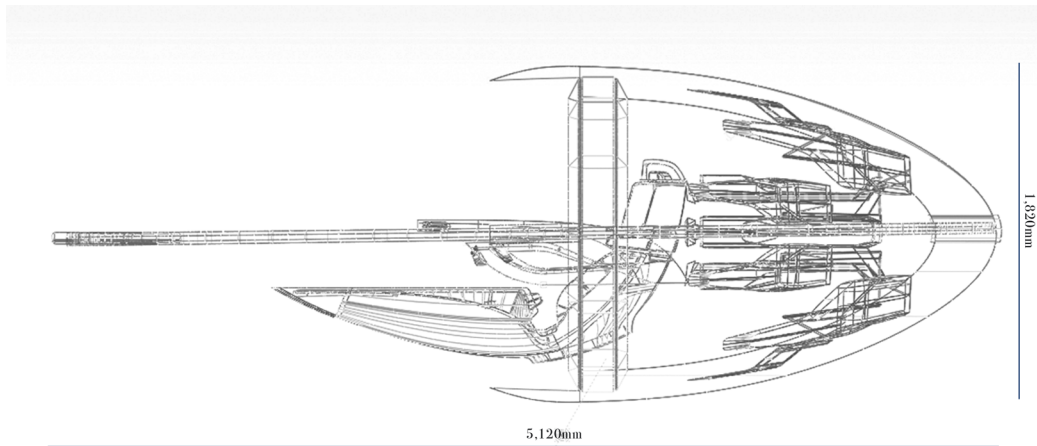
3D MODEL

this model was done
in 8 days with alias

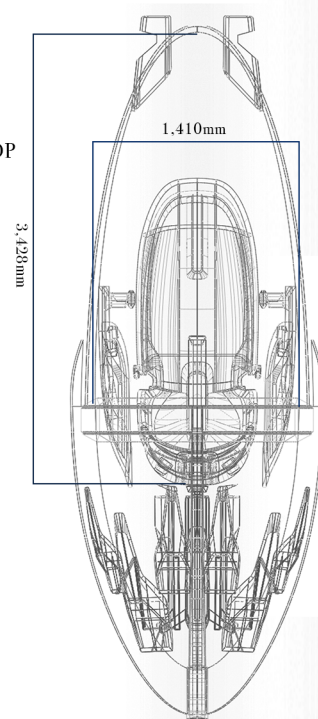


MEASUREMENTS

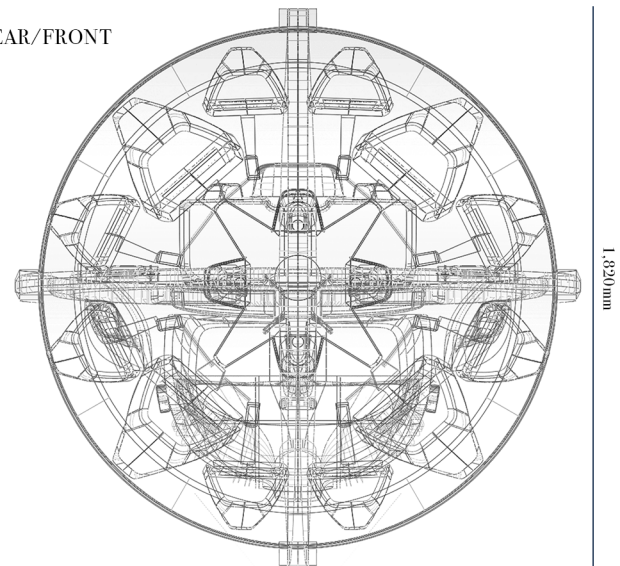
SIDE



TOP

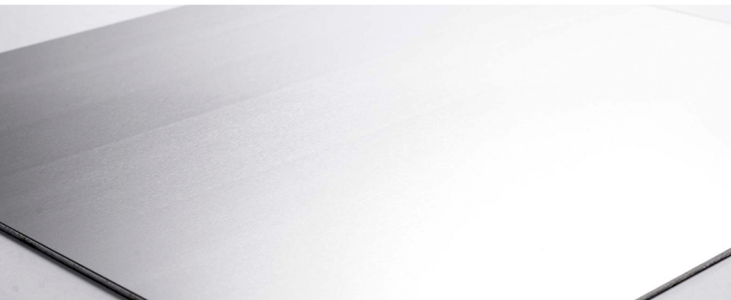


REAR/FRONT



COLOR & TRIM

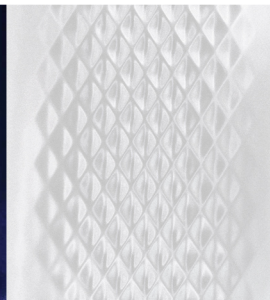
USER LIFESTYLE



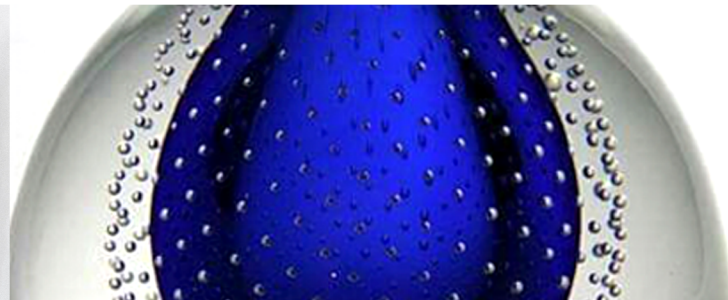
<https://www.metalswarehouse.co.uk/product/1-5mm-aluminium-sheet/>



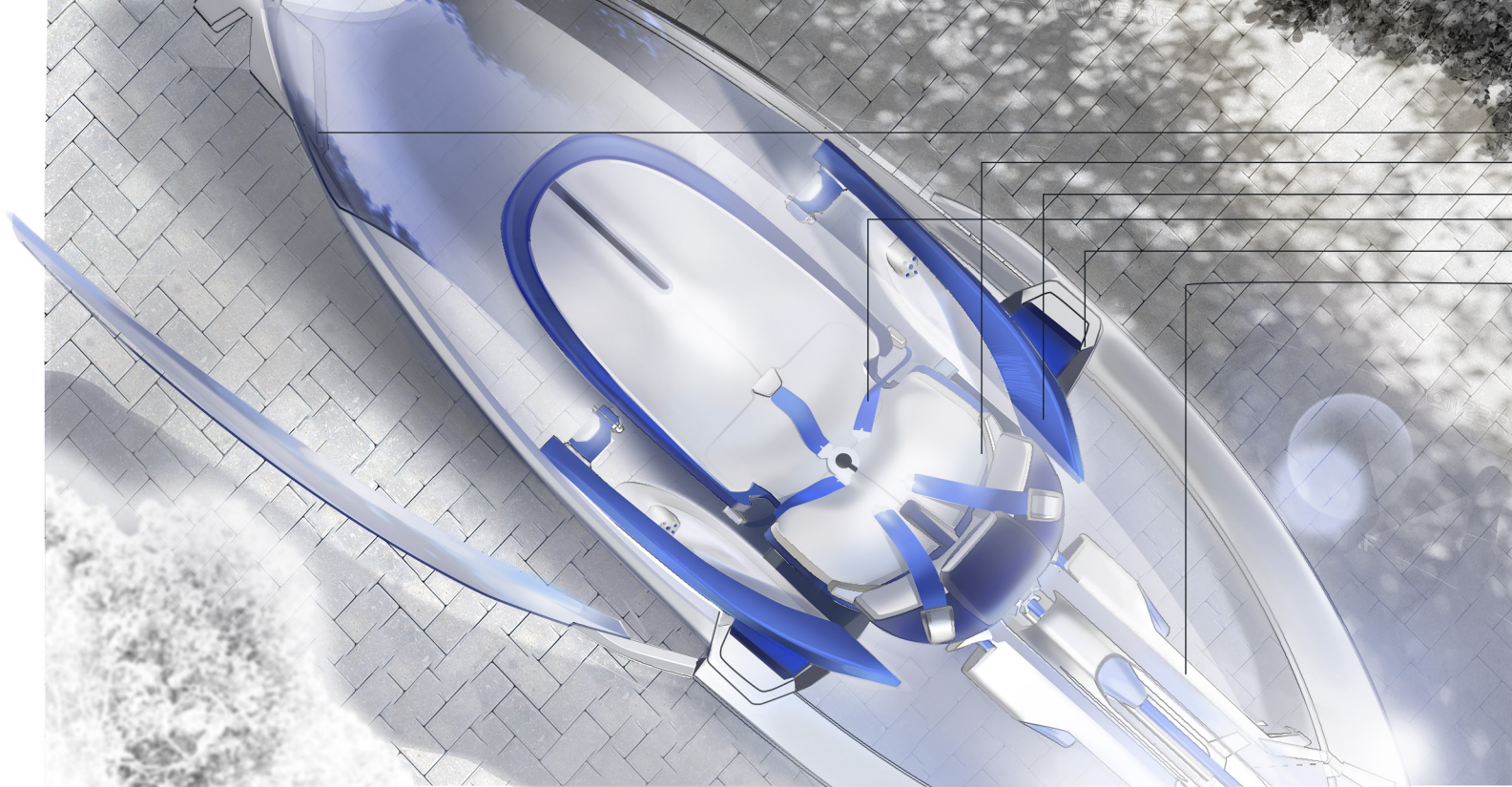
<https://tm-interiors.co.uk/fabric-brands/pierre-frey-fine-fabric-f3210020>



https://pro2-bar-s3-cdn-cf6.myportfolio.com/14751abd2e33b2b6339cca77b660eef2/0a28038842af09e3d5b87f0640e3ef843bacd635d760f38602dd8c5c193bbf565bbbed03fe06fddd_rw_1920.jpg?h=b2cf357bd6979f9d3e0299b267e26f51

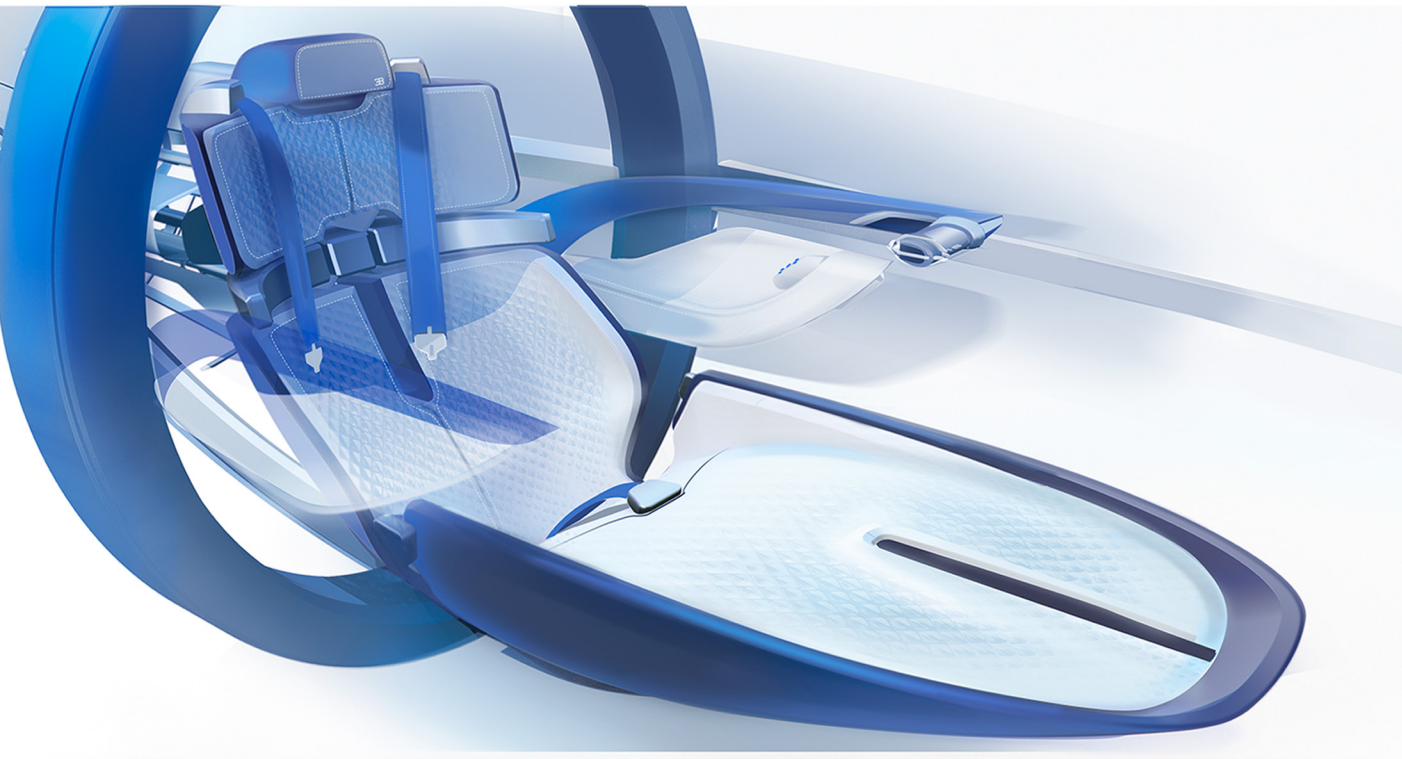


https://www.pinterest.fr/pin/AV-Ya_mX-zMULVsp_sA4W68IM1-Q_id9cZuk44IC7-lHpN7h-0D1ir5Q/Q_id9cZuk44IC7-lHpN7h-0D1ir5Q/



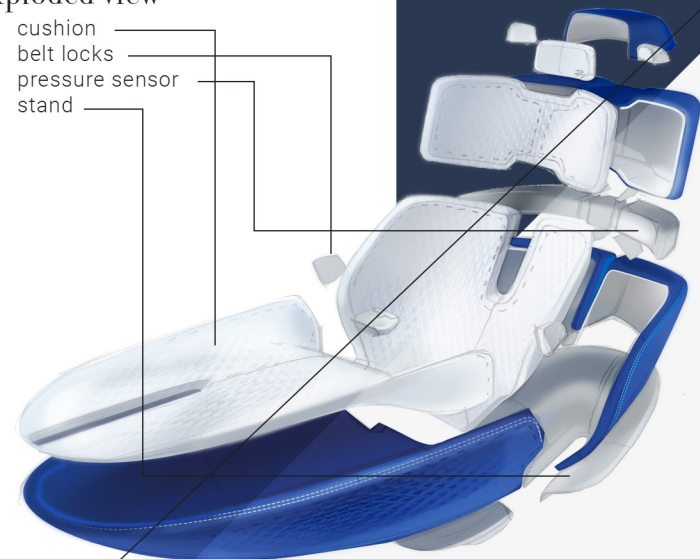
GLOBAL VIEW

- air vents
- seat
- handles & levers
- belts
- the sphere
- air-brake mechanism

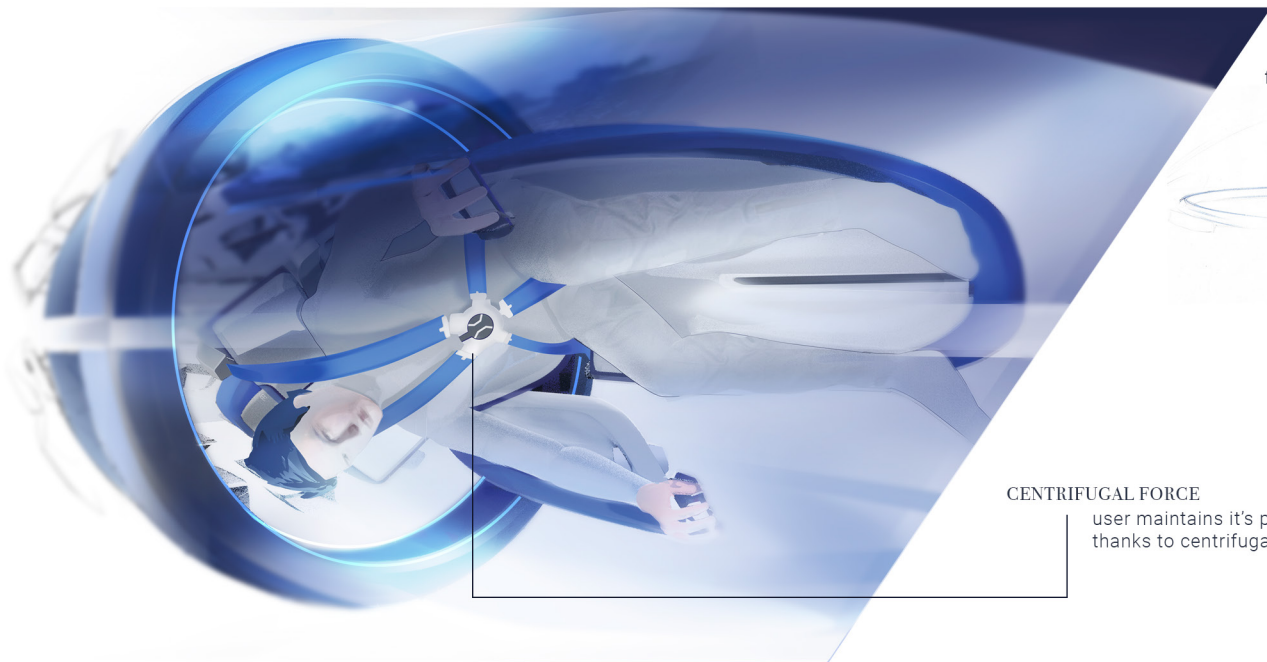


exploded view

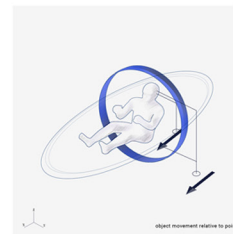
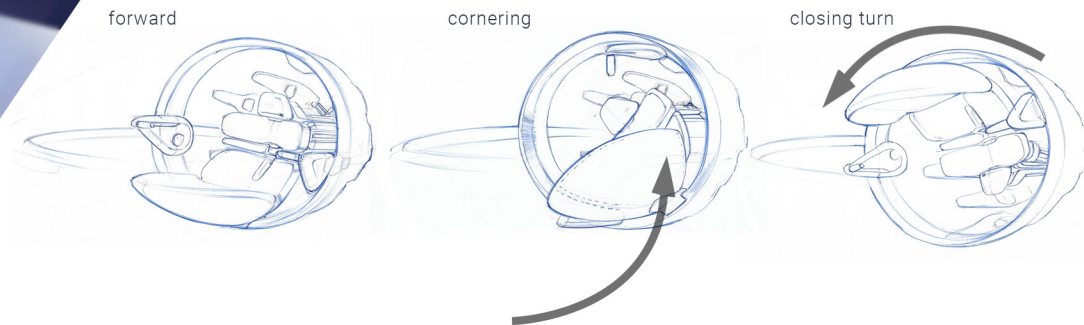
- cushion
- belt locks
- pressure sensor
- stand



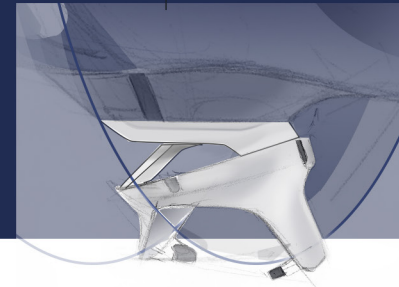
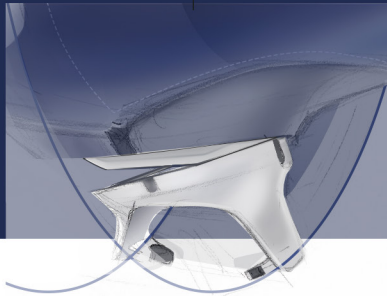
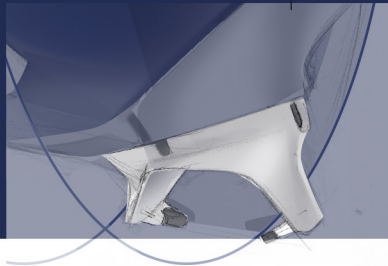
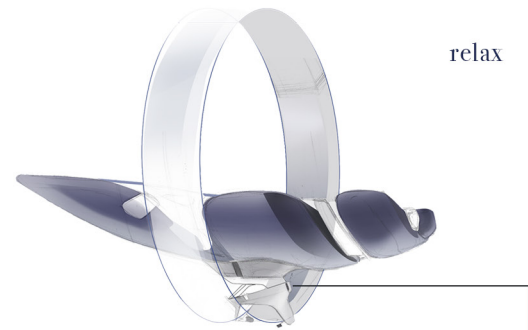
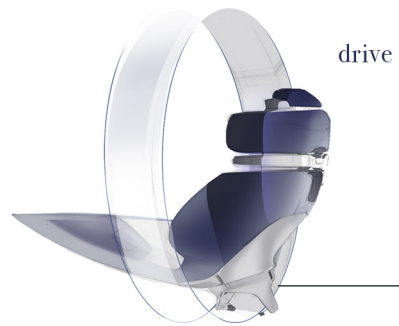
EXTREME DRIVING



CENTRIFUGAL FORCE
user maintains it's position
thanks to centrifugal force



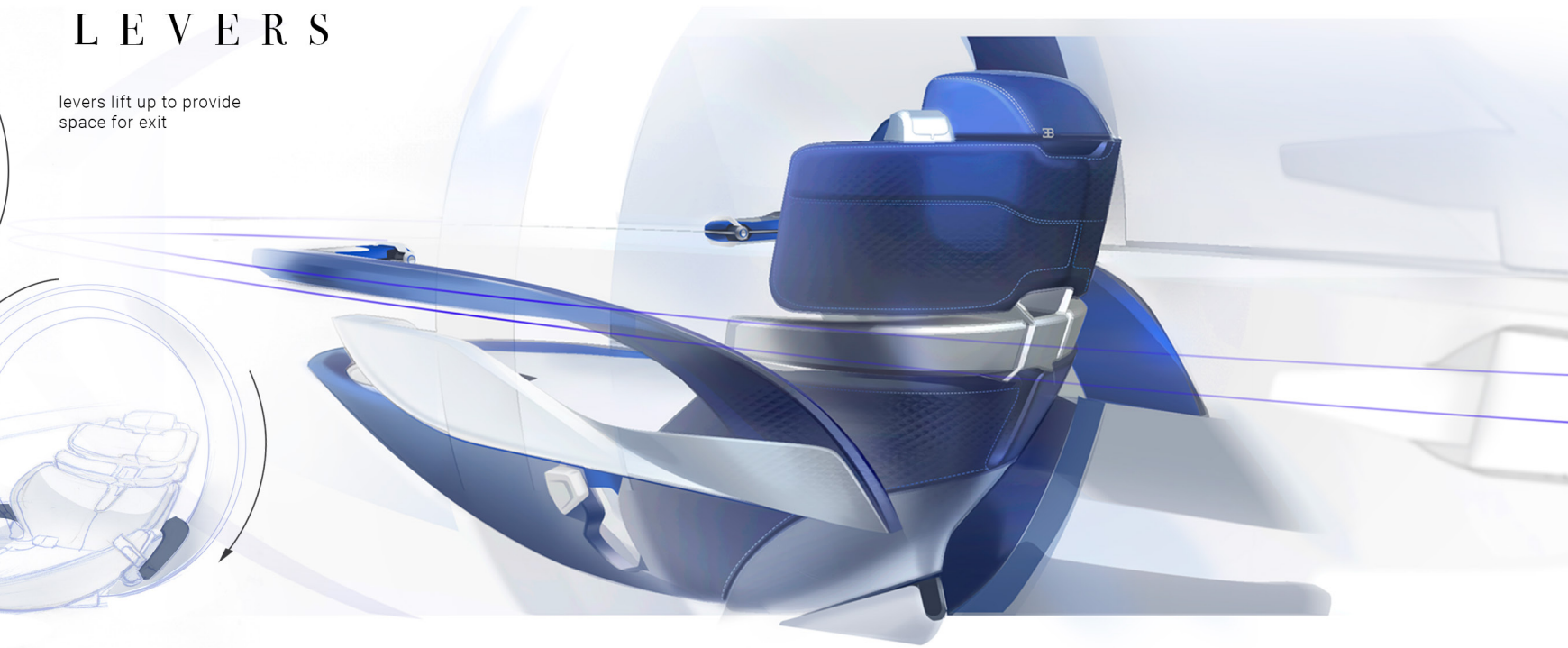
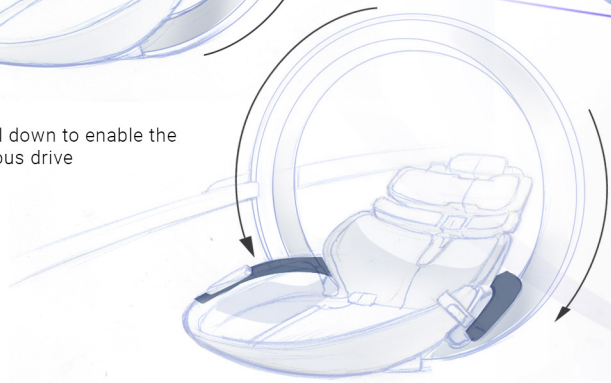
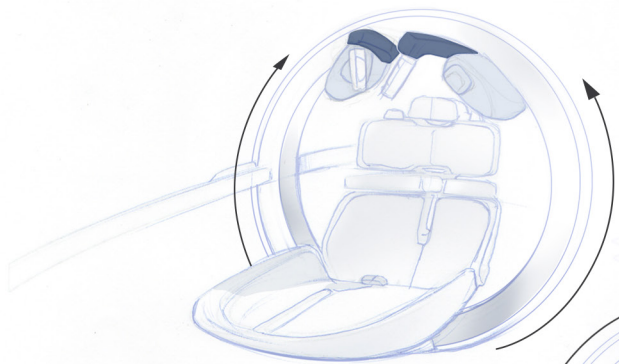
To provide extreme driving
experience, seat had to be
rotating accordingly to car's
movement.



LEVERS

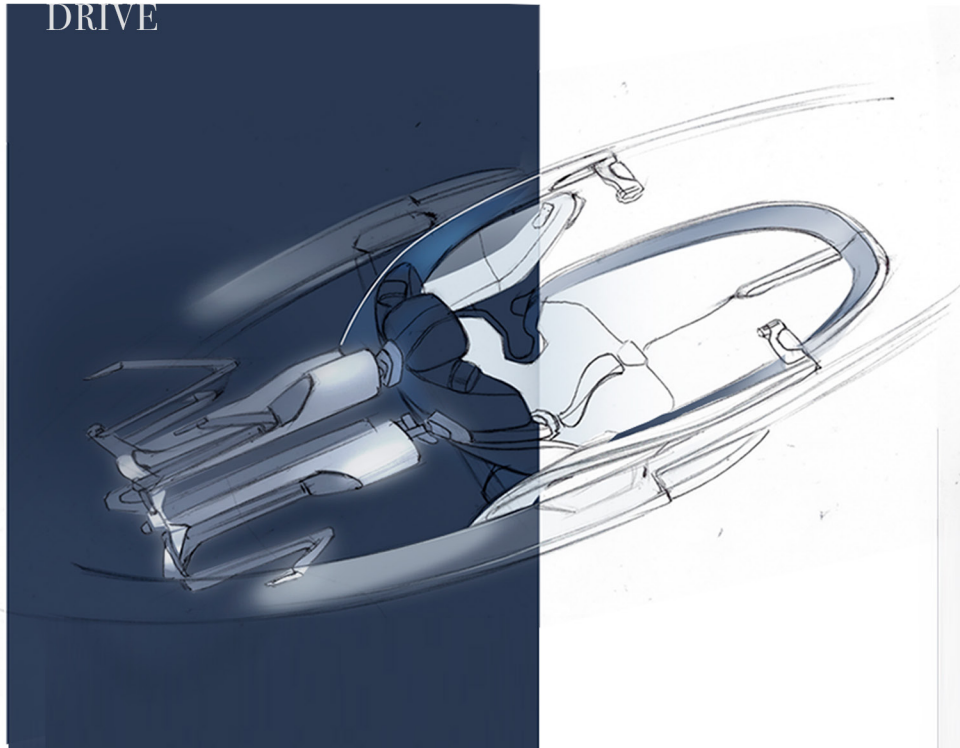
levers lift up to provide
space for exit

levers pull down to enable the
autonomous drive

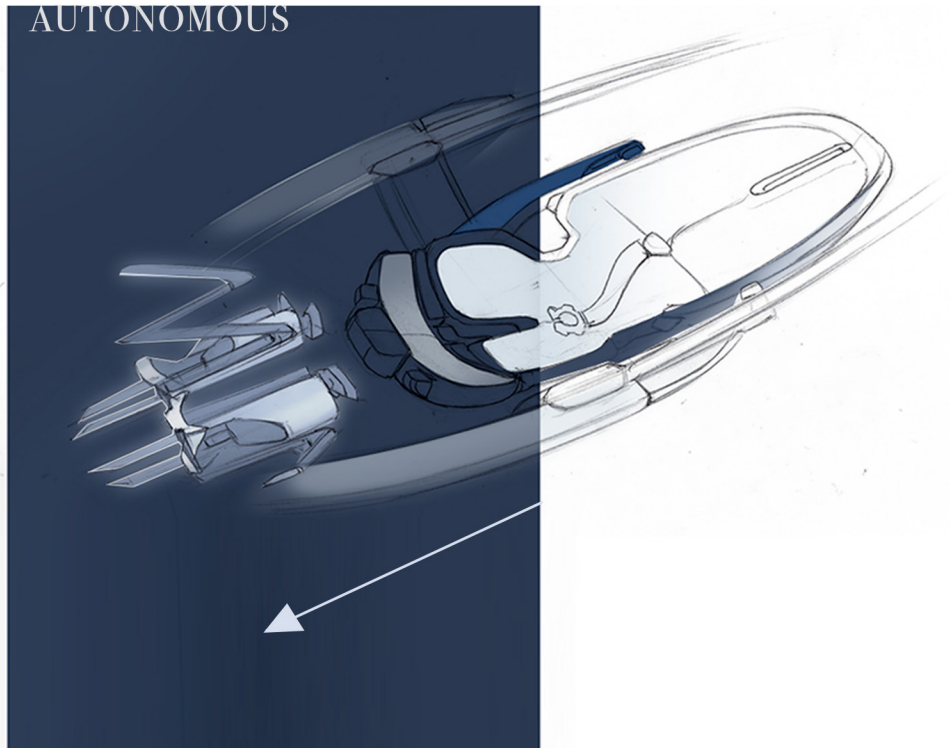


WITHDRAWING
MECHANISM

DRIVE



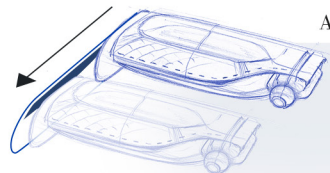
AUTONOMOUS



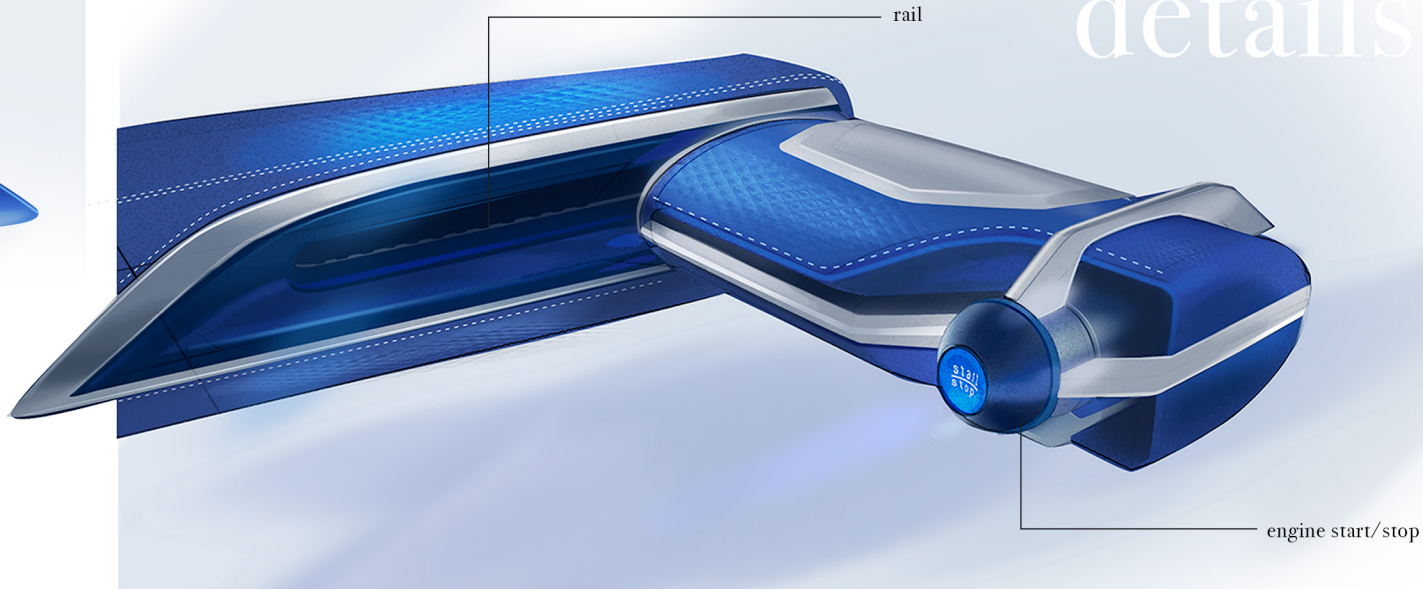
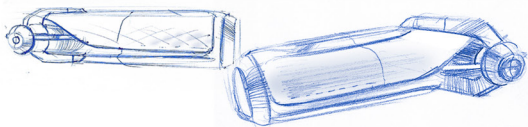


main screen interface tools

ACCELERATION



in order to accelerate user has to pull the handlebars



rail

details

engine start/stop

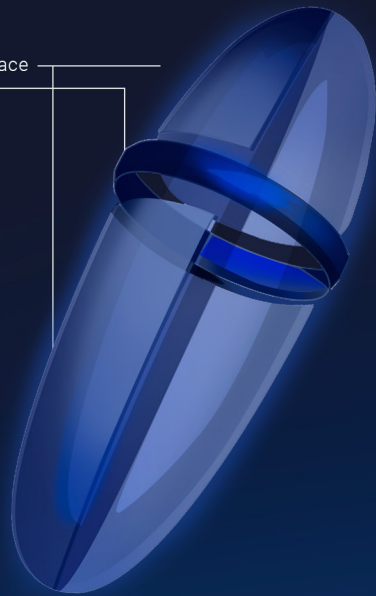
360° UNIVERSE INTERFACE

User can have "out of this world" immersive experience with fully surrounding interface. Anything can be projected inside.



PARTS

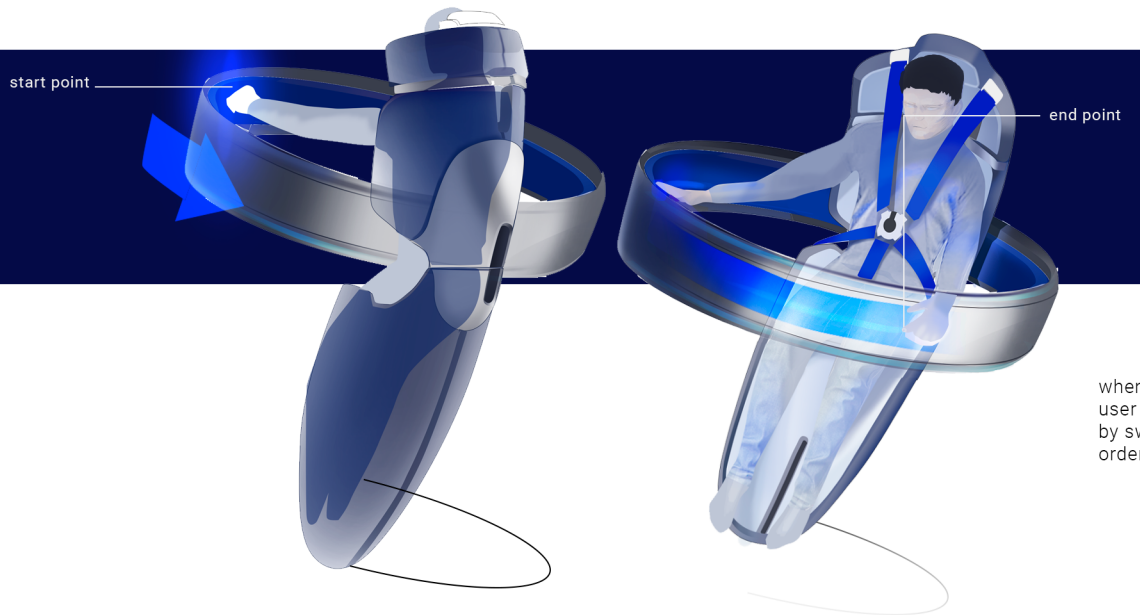
AR & holographic interface
main interface



ACTIONS

Apps or "actions" are constantly drifting through the Universe in haphazard order. In this way the user will always see the new perspective of performing certain acts.

360° INTERACTION

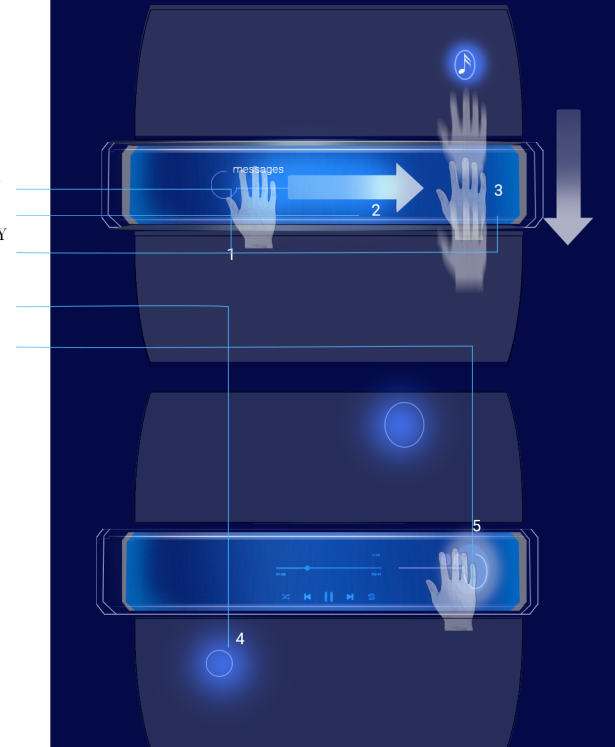


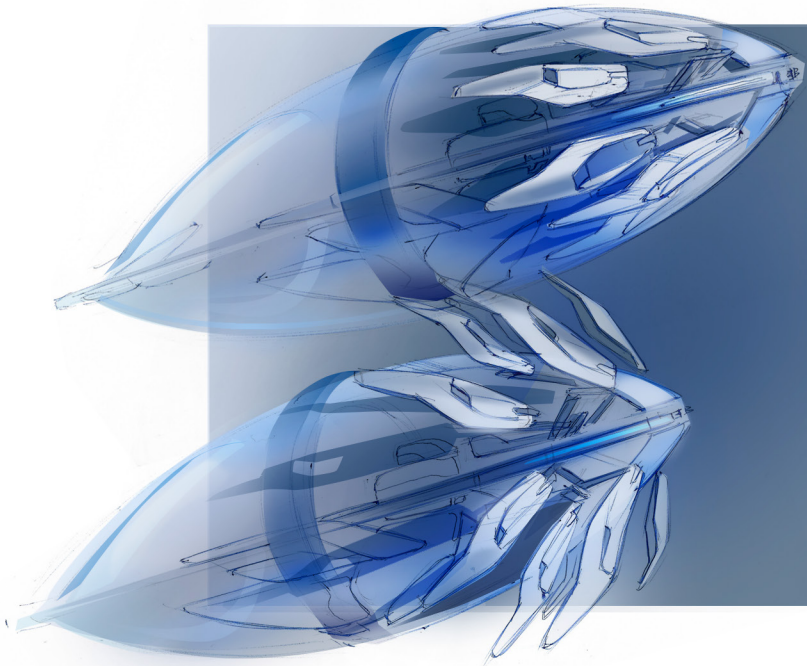
HOW TO USE IT?

all the actions are floating across the 360 universe interface haphazardly and in order to use them user has to adjust them into a main screen.

- 1 tap the current actions to finish it.
- 2 turn in physical environment in X direction.
- 3 scroll the wanted action closer in Y direction , and lock it in the main interaction platform.
- 4 previous action has moved out of the interaction area.
- 5 tap to use the new action.

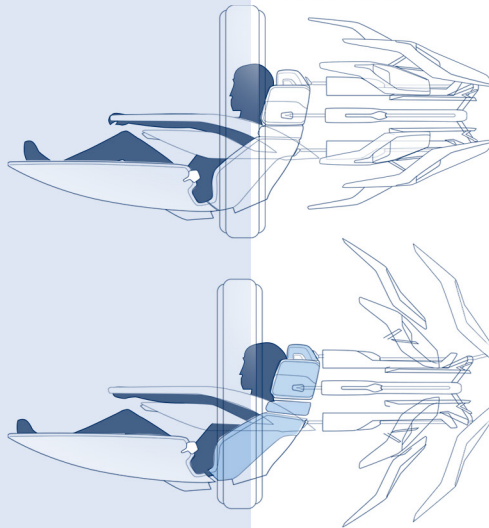
when car is in autonomous mode user can slide through the sphere by swiping the interface part in order to perform actions





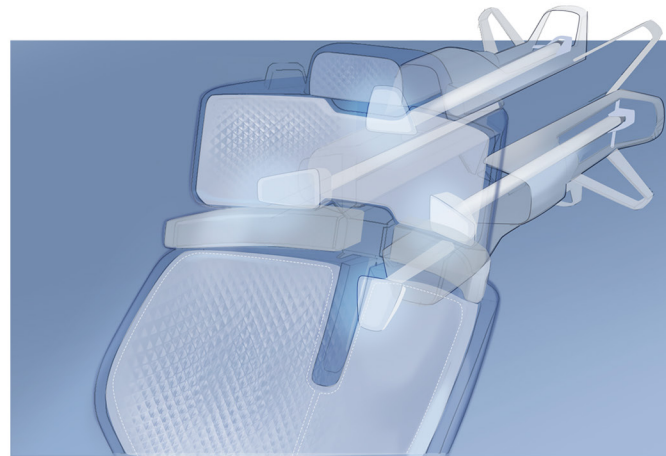
AIR BRAKE

user has to apply the pressure to the seat in order to brake, making it intuitive to use.

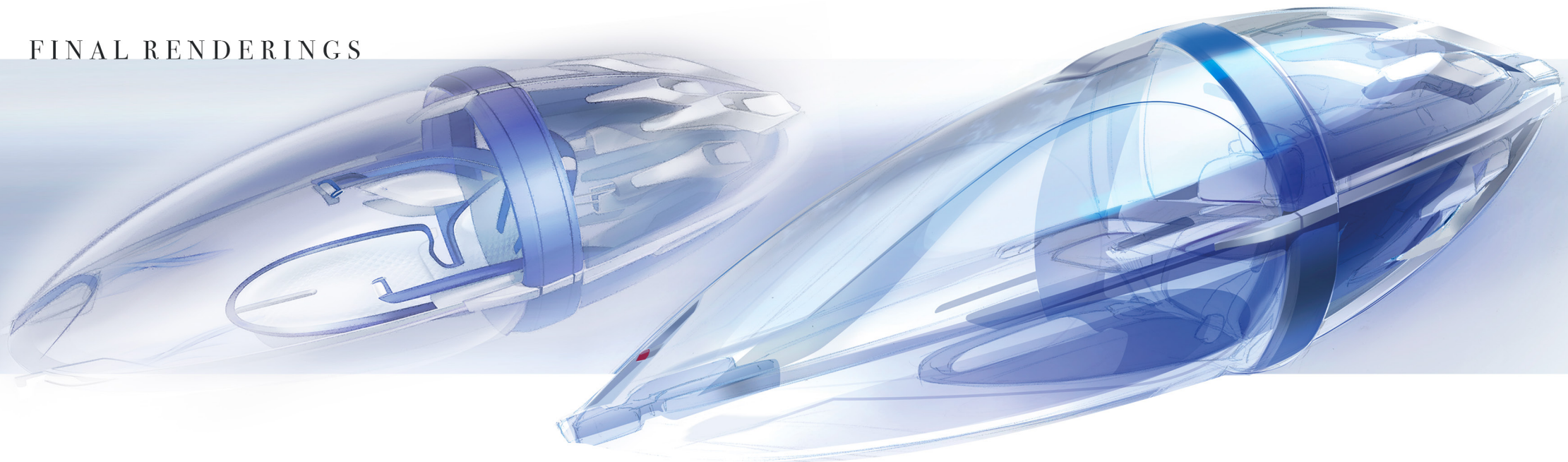


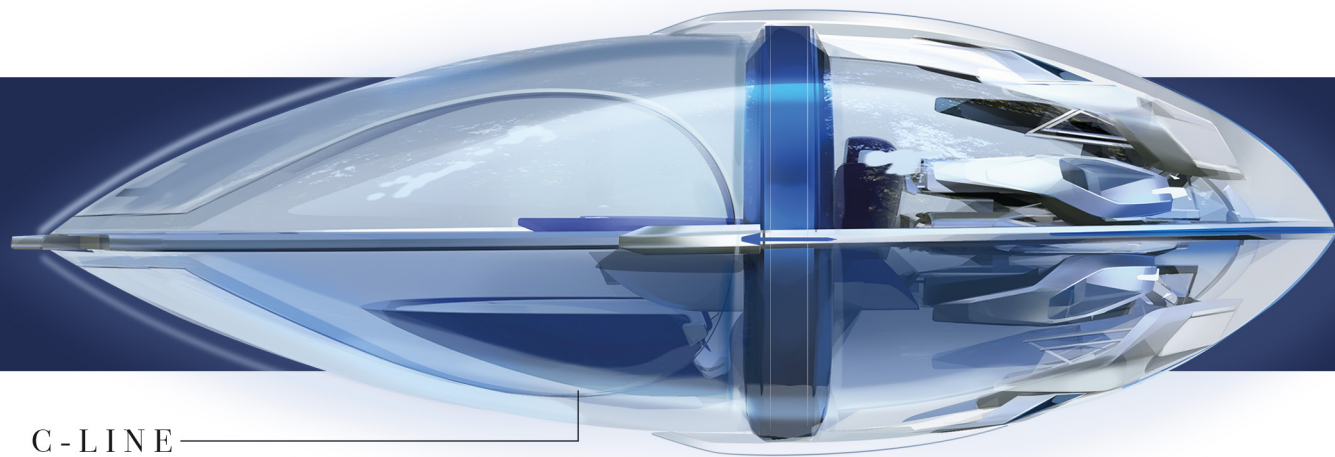
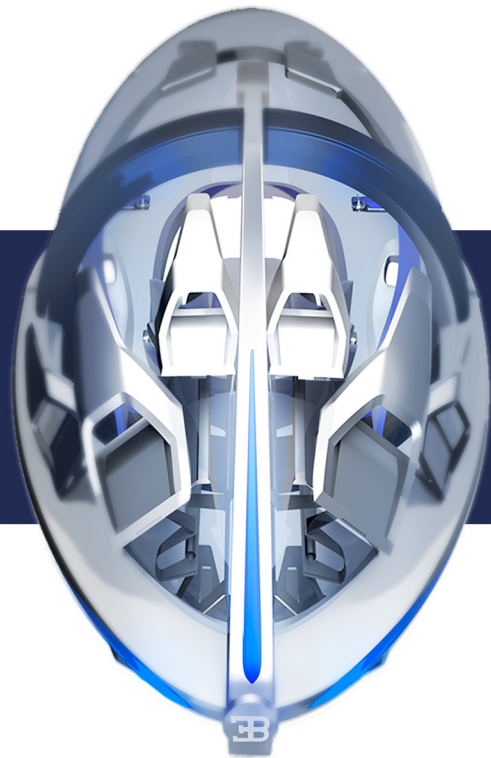
PRESSURE SENSORS

4 pressure sensors are in contact with seat. Their location is driven by the tip points of the back. Air brake wings open accordingly to the pressure added on each sensor.



FINAL RENDERINGS

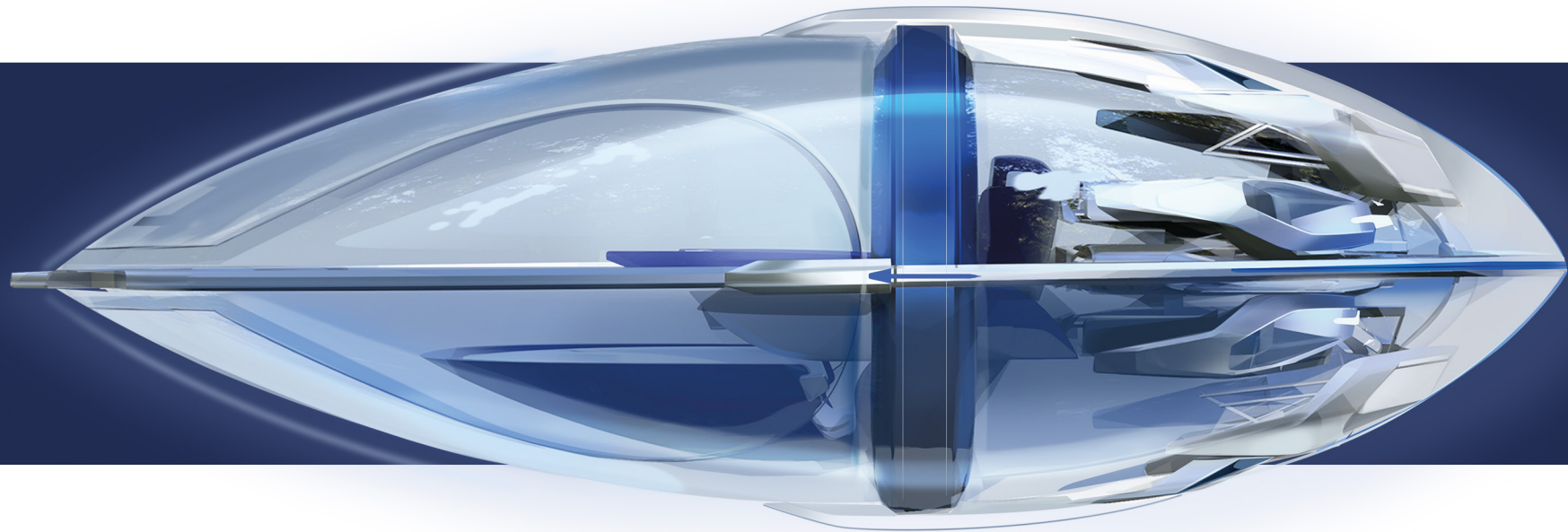




C - LINE

classic Bugatti door
cut line

THANK YOU.



7. Evaluation

Process

This project was very challenging to me in terms of time management. My context of concept was so broad, that it was demanding to articulate everything shortly and clearly. When making written part, I had to maintain the red thread. My concentration was very easily drawn by unnecessary stuff, which had no value to concept development. Next problems occurred when I tried to translate my research results into a form development. The clear ideas came only one month before handing in the project.

Result

I think the end result corresponds Bugatti's spirit in terms of design and philosophy. It is interesting study of what kind of technologies we can incorporate in the automatized and digitalized future.

Picture sources

Context:

http://www.fubiz.net/en/2016/08/19/neon-lights-in-tokyo-by-xavier-portela/?utm_content=buffer4e36e&utm_medium=social&utm_source=pinterest.com&utm_campaign=buffer

Concerns:

<https://www.forbes.com/sites/keithwagstaff/2016/02/28/are-your-kids-addicted-to-their-phones-screenagers-wants-to-help/>

No turning back:

<http://www.kaleidoscopeurope.net/top-5-transhumanist-technologies/>

Stimulating world:

<https://vimeo.com/166807261>

Creative society:

<https://catracalivre.com.br/viagem-livre/dicas-importantes-para-quem-deseja-conhecer-o-japao/>

Why did i choose bugatti?:

<https://www.carmag.co.za/news/industry-news/heres-how-long-it-takes-to-build-a-bugatti-chiron/>

<https://www.bugatti.com/chiron/>

Brief history of Bugatti:

<https://autoweek.com/article/car-life/mullin-bugatti-type-57sc-atlantic-best-best>

<https://autoweek.com/article/car-life/mullin-bugatti-type-57sc-atlantic-best-best>

Current trend:

<https://lemanooosh.com/app/uploads/PGD-Tech4Home-Modu-02-1.jpg>

<https://lemanooosh.com/app/uploads/bkid-Pedora-03-1.jpg>

<https://www.byton.com/m-byte-concept>

Future luxury:

<https://i.pinimg.com/originals/63/d9/be/63d9bede6cbfceab18c12bf1c9d58a7a.jpg>

<https://www.carmagazine.co.uk/car-news/motor-shows-events/tokyo/2017/mazda-visio-coupe-at-2017-tokyo-motor-show/>

Timeless:

<https://www.mismo.dk/blogs/stories/understanding-fractals>

https://upload.wikimedia.org/wikipedia/commons/thumb/5/55/Tour_Saint-Jacques_BLS.jpg/1500px-Tour_Saint-Jacques_BLS.jpg

<https://carnet-aux-petites-choses.fr/decouvrir-la-fondation-louis-vuitton-par-franck-gehry-paris-16/>

Typical user of Bugatti:

[https://commons.wikimedia.org/wiki/File:Fox_Classic_Car_Collection,_2008_\(06\).JPG](https://commons.wikimedia.org/wiki/File:Fox_Classic_Car_Collection,_2008_(06).JPG)

<https://www.instagram.com/p/BvwfRO7Dw56/>

<https://www.instagram.com/p/BsYCUV2nSC2/>

User:

<https://www.classicdriver.com/en/article/watches/new-parmigiani-watch-harder-get-a-bugatti-chiron>

Visual stimulus:

<http://www.peakpx.com/491991/white-peahen>

<https://www.adventure-journal.com/2017/04/nature-soothing-might-fractals/>

<https://www.mismo.dk/blogs/stories/understanding-fractals>

Inspiration board:

<https://www.instagram.com/p/BsYCUV2nSC2/>

<https://www.pinterest.fr/pin/326722147958090925/>

https://www.pinterest.fr/pin/AV-Ya_mX-zMULVsp_sA4W68IM1Q_Id9cZuk44IC7-lHpN7h-0D1ir5Q/Q_Id9cZuk44IC7-lHpN7h-0D1ir5Q/

<https://www.pinterest.fr/pin/326722147953414629/>

<https://www.pinterest.fr/pin/326722147953414637/>

Research phase 1:

<https://rmsothebys.com/am12/amelia-island/lots/1930-bugatti-type-46-superprofile-coupe/1049587>

Color & trim:

<https://www.metalswarehouse.co.uk/product/1-5mm-aluminium-sheet/>

<https://tm-interiors.co.uk/fabric-brands/pierre-frey-fine-fabric-f3210020>

https://pro2-bar-s3-cdn-cf6.myportfolio.com/14751abd2e33b2b6339cca77b660eef2/0a28038842af09e3d5b87f0640e3ef843bacd635d760f38602dd8c5c193bbf565bbbcd03fc06fddd_rw_1920.jpg?h=b2cf357bd6979f9d3e0299b267e26f51

https://www.pinterest.fr/pin/AV-Ya_mX-zMULVsp_sA4W68IM1Q_Id9cZuk44IC7-lHpN7h-0D1ir5Q/Q_Id9cZuk44IC7-lHpN7h-0D1ir5Q/

Written sources

CONTEXT 1

Screen times evolving:

<https://hackernoon.com/how-much-time-do-people-spend-on-their-mobile-phones-in-2017-e5f90a0b10a6>

Problems of social media:

https://www.theguardian.com/technology/2017/oct/05/smartphone-addiction-silicon-valley-dystopia?CMP=share_btn_fb&fbclid=IwAR3fP1kD4QPrqHLPZL7wLLeJ0HzHK-BKBnakR5x0adg8igmBT3J9Hvej8FY

FUTURE FORECAST 2

Stimulating world 2.1

Unpredictability draws attention:

Alison Gopnik, *Filosofinen vauva: Mitä lasten mieli kertoo totuudesta, rakkaudesta ja elämän tarkoituksesta*, (Helsinki: Terra Cognita, 2010. suom. Kimmo Pietiläinen) p.110.

Creative society 2.2

Plato criticism on literacy:

https://en.wikipedia.org/wiki/Literary_criticism

Nicholas Carr, Vastustamaton: Mitä internet tekee aivoillemme, (Helsinki: Terra Cognita, 2010. suom. Antti Pietiläinen), pages 60-61.

Impacts of literacy emergence:

Nicholas Carr, Vastustamaton: Mitä internet tekee aivoillemme, (Helsinki: Terra Cognita, 2010. suom. Antti Pietiläinen), p.62.

Linear thinking:

Nicholas Carr, Vastustamaton: Mitä internet tekee aivoillemme, (Helsinki: Terra Cognita, 2010. suom. Antti Pietiläinen), p.20.

Attention span lowered:

<https://www.scribd.com/document/265348695/Microsoft-Attention-Spans-Research-Report#download>

IQ tests indicate we are better at abstract thinking:

<https://www.bbc.com/news/magazine-31556802>

RESEARCH 3

Brief history 3.2

<https://fi.wikipedia.org/wiki/Bugatti>

<https://www.bugatti.com/tradition/history/>

<https://www.bugatti.com/brand/art-forme-technique/>

Timeless 3.5

About the subjective & objective beauty:

<http://www.australasianscience.com.au/article/issue-june-2014/brain-beholder-neuroscience-beauty.html>

3.6 User research

Effect of internet on users:

https://www.huffingtonpost.com/entry/internet-changing-brain-nicholas-carr_us_5614037de4b0368a1a613e96?fbclid=IwAR3hBgxtqJ6msoTa52IJYRojh9i0FMns0XHIwlAXIqrM7mkoxWlO8fa9LjM

3.7 Typical user of Bugatti

Typical Bugatti customer has 42 cars

<https://jalopnik.com/the-average-bugatti-customer-has-42-cars-at-home-1833331837>

4 IDEAS

Multitasking society 4.1

We are looking for something more natural in digitalized world:

<https://thespaces.com/tactile-design-why-we-like-things-a-little-rough-around-the-edges/>

