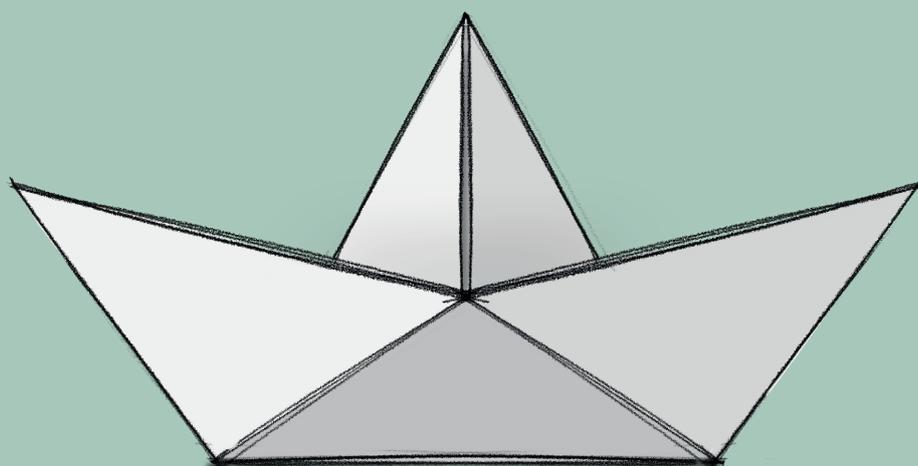# Digital Nomads: the shared sailing opportunity of 2040.

Digital Nomads: the shared sailing opportunity of 2040.

Graduate Student

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Index

Executive summary

This report contains a future vision for sailing yachts. It differs from many other visions as technology is not used as the basis for development, but behavioural change. The starting point is chosen as the upcoming Digital Nomad culture: Working from anywhere in the world. The thesis is done in cooperation with Contest Yachts, a sailing yacht builder from the Netherlands.

The analysis is done in two parts, which meet at the conclusion of the chapter. It consists of a brand analysis and a future use study.

Contest as a brand has three important values to cherish in the future to remain true to their current brand identity. These values are safety, quality and comfort and innovation. There is also a foreseen change, to make their current semi-custom approach more manageable in the future.

With the use of the ViP-method, future behaviour is predicted and separated in four different quadrants, each characterised by multiple habits. From these four, one is chosen to design for: The Trusting Tribe. With a strong focus on community and an inherent drive to be in nature, these people are interesting for Contest to build a new model around. The following vision is formulated: "We want people to uninterruptedly explore themselves and the planet through an open and flexible yacht."

The starting point for the ideation is shared ownership in combination with the tribe analogy. As the model of sharing is getting increased attention in the yachting business, also noticed by Contest. Within this system, it is important that the sailor still has a feeling of responsibility. The result is the Florence CS. She is a combination of a lease service in combination with ownership. The yacht exists of a fully functional interior and two empty private modules with their own heads. The shared space holds a galley, lounge area and workstation.

Future Tribe members can lease a yacht on one of the seven Contest harbours (Seen in step 1.) with friends, family or strangers. The local Contest crew fits the interior and prepares the yacht for departure (step 2). Contest provides a full and careless sailing experience to their future members (step 3). After the trip, the Contest crew removes the interiors and store them in local warehouses (step 4). The ship is checked, serviced and prepared for the next group of nomads to use.

The final proposal disrupts the current yachting market. It introduces a new business model for Contest in the shape of a lease service. Also, it includes shared ownership.

For future developments and innovations, it is up to Contest to make further work of this. Possible next steps are: redoing this project with another graduate student; developing it into a case study and share it with more experts and enthusiasts; organising a creative day for employees and let them share their thoughts and expertise.

As innovation is embedded in Contest, the above-named options should be within reach. Outcomes of these options can help to make Contest future-proof as well as to make the brand the booster the yachting world.

PERSONAL INTERIOR

CONTEST OWNED FLORENCE CS
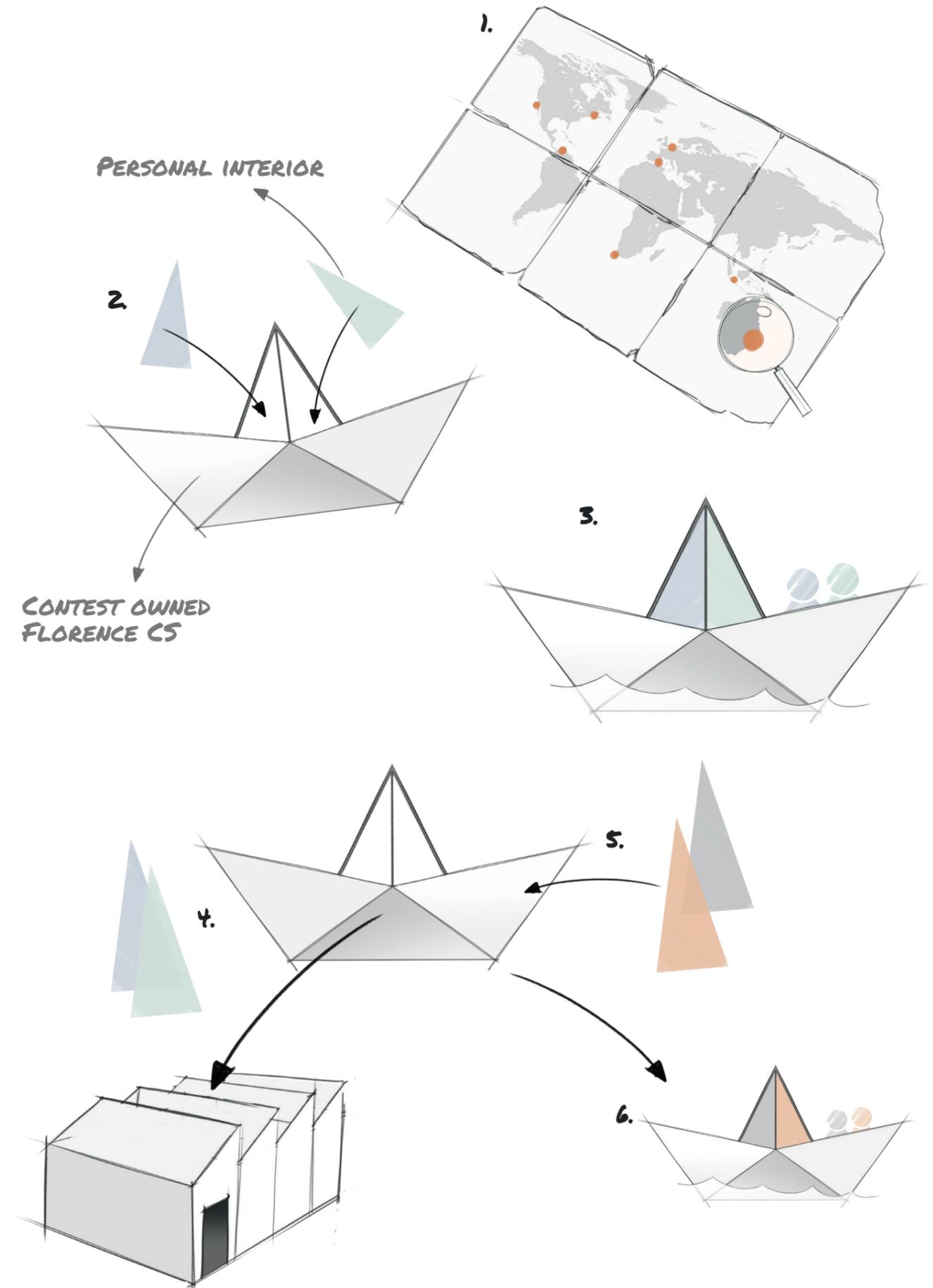
0.1 Schematic overview of the Florence CS and the Seven Seas Service.

0.2 My first sailing experience, 2002.

Acknowledgements

Preface

During the COVID-lockdown in 2020 and 2021, the feeling of imprisonment came over me. Apart from my roommates, all the social contact I had daily was through the Zoom interface. It dawned on me that, as long as I was connected to the internet, my workplace could be anywhere in the world. In the brainstorm that followed, I found that there is a name for these people: Digital Nomads.

In one of the sleep deprived nights this thought met with one of my hobbies, sailing. The rhythm of the waves and the natural silence when the engine shuts of always result in a moment of pure relaxation. The concerns of the daily life drift away with the wind, and the silence on the water allows me to hear my own thoughts.

The lifestyle of these Nomads inspired me to do this project, in combination with my vision of ultimate freedom, sailing led to the steppingstone of a project that is close to my heart. To help me navigate through the world of yachts, I searched for a company that could help me gain knowledge on the topic.

In Contest I found a partner that was as curious to these developments as I was. Their expertise and support have lifted this project to a level I would not have dreamed of before. Together we investigate how to provide ultimate freedom to the sailors and nomads of the future. The goal can be defined as investigating new solutions and opportunities for the future. This report contains an in-depth analysis of what the future might bring. In chapter 4. Conceptualisation a possible outcome is formulated and visualised. By no-means should this end product be used as a goal.

With much rejoice I look back at this project. It will inspire me to do things differently in the future. To the reader: Let this inspire you to rethink decisions in your life. It is easy to get caught in the rapids of life. Do not forget to make life memorable and enjoy the moments that are there.

Be well,

Joost

0.3 Friedrich, C. D. (1818). Der Wanderer über dem Nebelmeer [Painting]. Hamburger Kunsthalle, Hamburg, Duitsland.

Der Wanderer über dem Nebelmeer is seen as the example of the Romantic period in art. In a time in which industrialisation distanced us from nature, romanticism tried to reimagine our connection with nature.
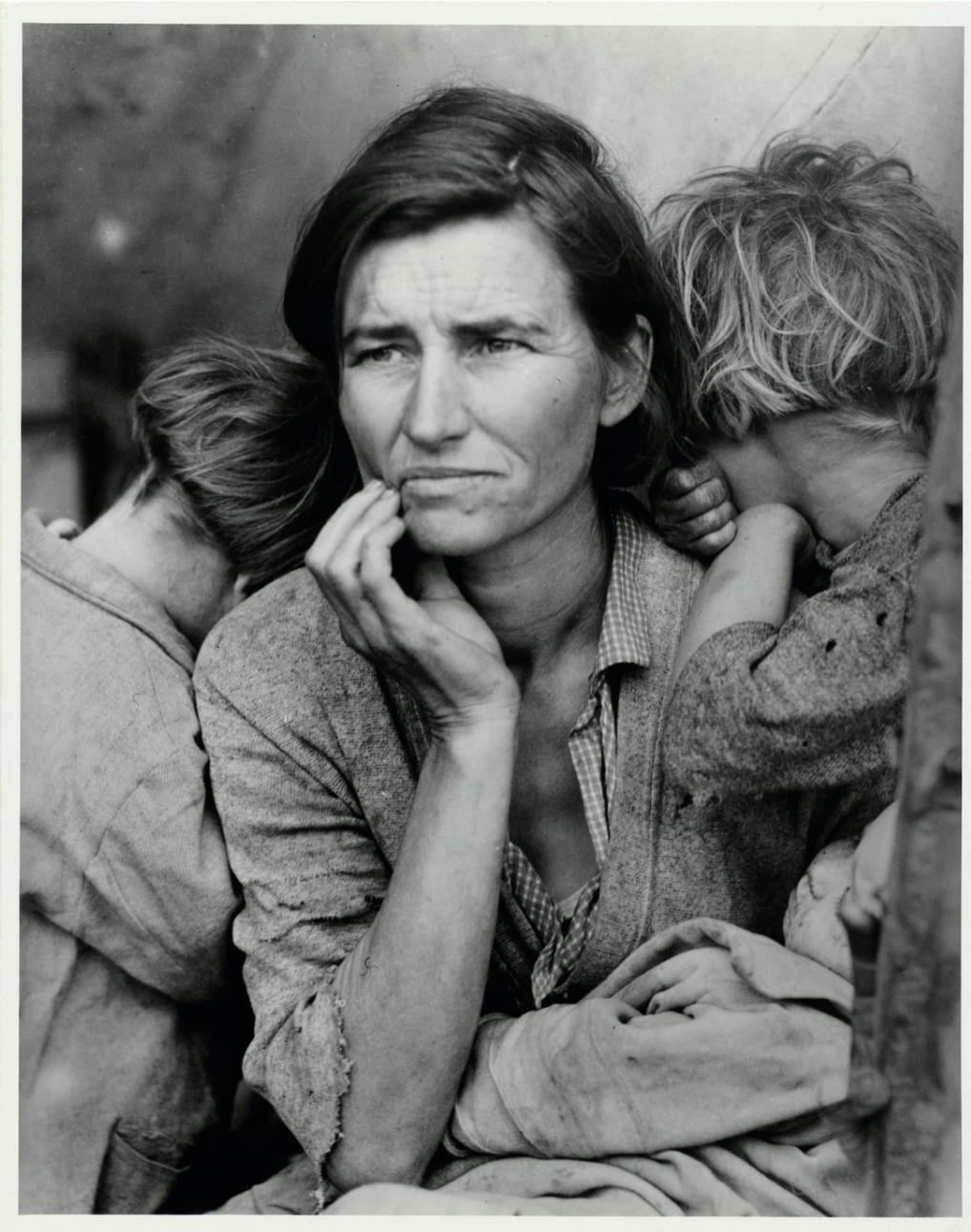
0.4 Florence Owen Thompson. Photo by Dorothea Lange, 1936.

Florence CS

The final design is named after Florence Owens Thompson, born as a member of the Cherokee Tribe. She is known from the picture in figure 0.4, the symbol of the Great Depression in 1929 (Pruitt, 2020). As a mother of seven children, she travelled around the United States looking for work to provide for her family. Her resilience and determination are an inspiration for this project.

Her reason for the nomadic lifestyle was forced. For the people that use this future Contest service, it is a choice of luxury. Her name is to remind us that not all choices are ours to be made.

1. Setting the scene

In this chapter, we acquaint ourselves with the different aspects of this thesis. The method, the partners and the general scope of the project are briefly explained and discussed.

'Yachts to let you adventure, to fulfil your dreams.'

Contest Yachts

Based in Medemblik, The Netherlands, Contest Yachts has been building premium sailing yachts since 1959. With craftmanship in high regard, they are building blue water cruisers (open ocean sailors) that last for decades. The semi-custom approach allows clients to tailor a yacht to their desire. The size of these yachts ranges from 42ft to 85ft.

This project is done in collaboration and in request of Contest Yachts. Therefore, they are the main stakeholder in this graduation. Their expertise on yacht design and building lifts the assignment to another level.

Partners

Designing a sailing yacht is complicated and demands broad expertise. Together with multiple partners Contest designs and develops their yachts. Thereby using other people's expertise as well.

Wetzels Brown Partners
Based in Amsterdam, this interior design agency has been part of the Contest design team since 2011. The head of design, Gillian Brown, is in close contact with the shipyard during the development of the ship. Together with Contest, Wetzels Brown (from here on referred to as WB) designs the optimal living space with elegant details. In a certain way, they are responsible for the look and feel of the ship.

Judel/Vrolijk & Co
Judel/Vrolijk & Co (from here on referred to as J/V) is a German naval architect firm. Their portfolio ranges from carbon fibre racing yachts to luxury blue water cruisers. Since 2016, J/V is the naval architect of the shipyard. This agency designs and develops the exterior of the ship, as well as the rigging. In dialogue with Contest, the emphasis of the design is determined.

Lloyd's Register
This partnership dates back to 1972. The Lloyd's Register is a certification company. Their level of checking the quality of the ship is amongst the highest in the world. However, it is not just the certification they do. Lloyd's is a development partner. When a new ship is designed, they are at the same table as the other partners. Thereby Lloyd's can guarantee the quality of the ship throughout the design and building process.

1.2 Contest & Partners locations.

Contest Yachts
Wetzels Brown Partners
Judel/Vrolijk & Co
Lloyd's Register

Project

Unlike most design projects, this project starts with an opportunity rather than a problem. The ever-changing world community has once again reached a new turning point.

"The times they are changing." As once sang by Bob Dylan never really went out of fashion. Humans drive for innovation has been around since the beginning of humankind. This technology revolution is only going faster (Kurzweil, 2005). The fact that this ever-moving train called technology is unlikely to stop, means that companies, governments and people need to adapt to it constantly.

Recently we have encountered this during the pandemic while working from home. People who had to work from home had the possibility to work in a completely digital workspace. Being completely distant from our previous experiences, we had to shift to unknown and therefore inconvenient working structures.

Naturally this works both ways. We also demand more from our technology nowadays and we build our careers on it. Many people are even fully dependent on it. What would an influencer be without Instagram and a proper smartphone? This goes for many more professions. The current digital nomads also trust their technology to work anywhere in the world to provide an income for them.

Finally, being an expert in a certain topic (in the case of Contest, sailing yachts), results in phenomenal products that will last a lifetime. However, it also limits the view. People are used to thinking in solutions they know (Maslow, A. 1966). Having a fresh mind think along can help a great deal to innovate. Think for instance about Elon Musk. He did not have a great deal of experience with building cars. However, he disrupted the entire car market.

Let us take Contests expertise, constant innovation and our new perspective on life together and create a combination with the best of all worlds. Combine the endless possibilities the future brings with a client that has proved time and again it can build quality yachts that last.

In this report the following research question is answered: "How can Contest design a yacht for the next generation consumers in 2040, while living up to their expectations and desires?" The result can be used by Contest to determine further market expansion, or a change of direction. It is by no means a finished product. The goal is to inspire and create a new perspective on the sailing life.

NB. As can be seen from the visuals of this report, everything is drawn up in pencil: easy to erase. Erasing is not a problem, I would even encourage it. As long as the pencil is picked back up again.

"How can Contest design a sailyacht for the next generation consumers in 2040, while living up to their expectations and desires?"

Method 2040

The analysis of this project consists of two parts: Future behaviour research and brand analysis. Naturally these have different approaches. At first these analyses are done separately, to be unjudgmental in the decision making on the individual parts.

For the future behaviour, in which the wants and needs of the future generation yacht owners is determined, the Vision in Product design method is used (from here on referred to as ViP-Method) (Hekkert & van Dijk, 2011). The daunting task of predicting the future is hereby structured. The focus is to predict future behaviour, rather than technologies. This is done by deconstructing current product values into the involved interaction. After this, the current context is formulated and based on trends and developments, the predictive future context is outlined as well. Within this last step, our new design vision is found. A schematic overview of the process can be seen in figure 1.3.

By carefully formulating which behaviour people are going to manifest within the future context, it becomes possible to map out certain needs. Concepts designed based on needs can be more valuable than those based on technologies. As the main stakeholder is in the middle of the development process.

The brand analysis was done according to the brand prism (Kapferer, 2012). It communicates the different facets of brand identity and their interrelations. The value of this brand analysis is that the final solution fits Contest. That is not to say that the brand cannot and will not innovate in the set timeframe.

Conclusions from the brand prism are based on multiple conversations with the company coach, Robert Vijselaar and with Contest development partners, Wetzels Brown and Judel/Vrolijk & co.

When designing for the future, the scope of the project is determining a lot of factors. The chosen timeframe needs to be well determined and logical. The timeframe for this project is chosen on the digital acceptance of the new generation of buyers. By 2040, much of the workforce are digital natives. Also, they have lived through the COVID pandemic. These people are the first to be obligated to work and study from home. This diverged connection with work and the technology embracement, results in a generation that has different expectations and abilities.
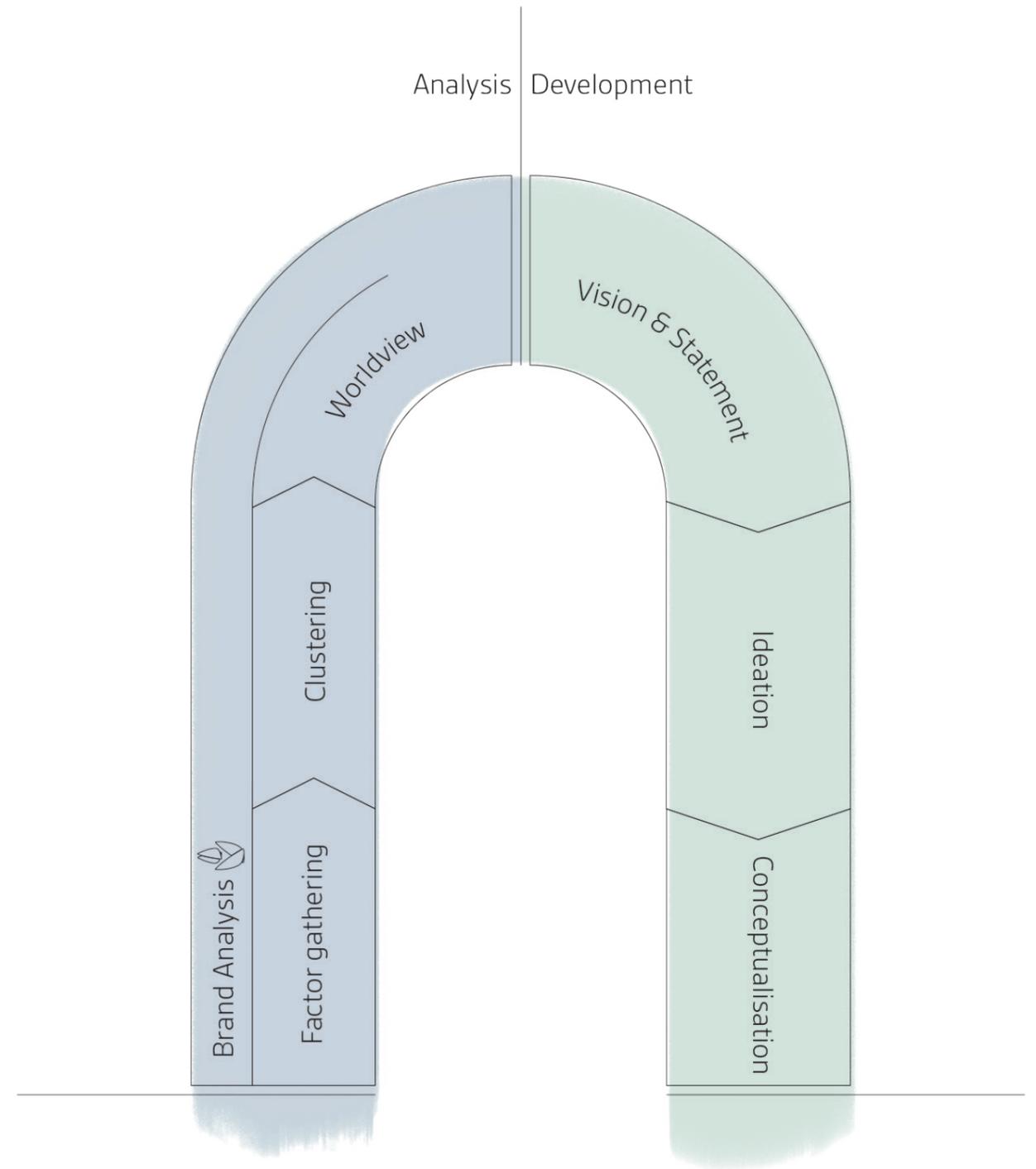
1.3 Schematic overview of the used method.

Digital nomad

Traveling is as old as the planet. Fish swim across the globe to procreate in favourable waters. Birds fly from North to South and back again to escape the cold weather. In fact, many species are not bound to a location. People are no strangers to this behaviour either. Our society all started from nomadic tribes that travelled through barren landscapes, looking for favourable conditions and promising hunting grounds. Only until we 'discovered' agriculture, we became settlers. These first settlements date from 8000 years ago (Morfin, 2015).

That our settlements slowly grew into villages, cities and finally metropolises, does not mean that our nomadic past is completely behind us. Every year during summertime, the financial fortunate spread out their (figurative) wings to spend time in different countries to experience different cultures and nature.

Also, authentic nomadic tribes continue to roam the world. However, as Jimmy Nelson rather pessimistically framed in his book "Before they pass away", this way of living is becoming scarce. The grounds of these indigenous people are endangered by overpopulation and climate change.

Whilst our indigenous Nomadic roots seems to disappear in the violence of our 'we want more'

mentality, a new kind of Nomad rises from their ashes, The Digital Nomad. Not bound to a single location, this new type of traveller works around the world. Digital revolution, growing mobility and a changing relation with work, provide for this new roamer (Hannonen, 2020). The feeling of freedom is paramount. People undertaking this lifestyle change location whenever they feel like they have seen enough and want to move on. Often pursuing this lifestyle for multiple years, until they feel like settling down. (J. Lepitre (Digital Nomad), personal communication, 2022). In the current situation, this group can be described as young and not yet tied down with jobs or families.

The promising hunting grounds are no longer about the ability to eat and survive, but it is about discovering and exploring new cultures. It is a new market segment, and it is gaining more traction (Müller, 2016).

The 'work from anywhere' attitude could be an expansion of the Contest target group. These nomads will use their yacht for other purposes and therefore have different demands. The digital nomad of 2040 is the basis of the project. That should not exclude the recreational purpose of a yacht. After all, working is not something you do the entire day, every day. Neither is it in Contest's interest to abandon their current target group.

1.4 Digital nomad sketch.

2. Analysis

The start of this project is an in-depth analysis of future consumer behaviour and the brand as it currently is. As mentioned in the method, the two topics are researched separately to avoid bias in an early stage. At the end of this chapter, these parts meet in the final conclusion.

Physique
Premium semi-custom sailing yachts with the ability to sail around the world.

Personality
Quality, Comfort, Safety

Relationship
Personalisation, Trust from consumer in Contest's ability to build a **quality** and **safe** yacht.

Culture
Innovative, Performance, Family owned, **Quality**.

Contest

YACHTS TO LET YOU ADVENTURE, TO FULFIL YOUR DREAMS.

Externalization

Internalization

Reflection
Serious sailor, Adventurous, Choice for **high quality**

Self-Image
The performance allows me to pursue my sailing passion. While the time spent on the boat is in luxury due to the **comfort**.

Picture of Receiver

2.1 Brand prism.

Brand analysis

As briefly mentioned in the method, for the brand analysis, multiple sources are used. At the beginning of this project, I shared a questionnaire (Appendix 1) with multiple department managers to determine where they feel Contest is currently at, but also how they see the future of Contest. The goal of these questions was to get a better feeling for the values of Contest as seen by the employees. Also, the interviews and discussions with experts (Appendix 2 and 3) are used to further form a vision of the company.

Brand prism
In figure 2.1, the filled-out brand prism is presented. The information used for this method was gathered through the questionnaire as well as interviews with the company coach and the Contest partners. The result of this method tells the story of the brand and their vision, as well as their perceived values. It is used to objectively observe the values of Contest, and how these build the brand.

The six sides of the prism cannot be seen individually. All of them are inter-related. Changing one of these values results in shifts in the other facets as well. It is not preferable to change two things simultaneously, as the desirable outcome might be compromised. There are a few possible future reasons, why Contest would chance anything about their brand identity. Perhaps the market demand will shift, or other opportunities present themselves.

In further ideation and conceptualisation, the consistency of the brand is considered. Values like innovation, comfort and safety (bold in the brand prism) will be cherished throughout the further project. For each of these aspects the importance for the brand and their users will be discussed.

Safety
With the Lloyd's registry Contest has been emphasizing the importance of safety for almost fifty years. This classification stands for excellent build quality and craftmanship. Apart from the obvious safety aspect, it is also a unique selling point for Contest.

On an ocean crossing, the owner should be able to trust the ship and have the idea that knowledgeable workers have designed for its safety. The customers trust Contest to be able to have thought about their safety on the water (G. Brown, full interview transcript can be found in Appendix 2).

This trust also builds the bond between Contest and the client. If this expectation of safety is not met, the possibility might well be that future clients have their doubts as well.

Comfort & quality
Luxury products are often known for their comfort. With the craftmanship of Contest and high demand for quality, this comfort expresses itself in elegant and detailed interiors. Much of this quality can be found in the carefully chosen materials throughout the interior. Additionally, comfort is also felt through the size of a space. Making it appear more spacious through the use of lighter materials can fortify the feeling of comfort (G. Brown, 2022).

Our drive for comfort is underlined also, in the interview with Johan from J/V (Full interview transcription can be found in appendix 3). People are looking for increasingly more comfort in their yachts. Nowadays sailors talk about square meters of living space in their yachts. Hereby stressing the importance of the size of the living area.

It is an aspect of which Contest is proud, and rightfully so. The far above standard quality is their absolute unique selling point. With the market demand only growing for comfort, Contest is in a great position.

Innovation
As part of their change in approach, Contest started cooperating with J/V back in 2016. The extensive knowledge this naval architect bureau has, exceeds the ability of Contest to keep up with the newest trends and developments. Therefore, this partnership creates an innovation boost for the new Contest line, currently focussed on boosting sailing performance.

Not only in their products innovation is prevailing. The production process is also actively improved with new features. All in the name of quality. According to the observer of the Lloyd's Register's, Contest is a decade ahead of other shipyards considering their composite technology.

This value is embedded throughout the Contest Brand DNA. Every aspect of the shipyard is subject to this innovation drive. It results in an always up to date and well-equipped end product. Certainly, a precious value to embrace.

Sustainability
Although not mentioned in the brand prism, the sustainability trend is something that Contest is subject to also. It seems a paradox. To provide a luxury sailing yacht, which often has no other purpose than recreational activities. However, the interest in sustainability is sincere. There is also potential for sustainable gains in the yachting industry.

Future customers are also actively looking for more sustainable lifestyles and products (Metzger, et al., 2017). A consumer-focused company like Contest should respond to this current and future market pull. They have been focussing more on the use of materials. In the interior department already the choice to use recycled materials is present. The current market in which the demand for recycled materials increases, the offer becomes larger as well. Also, materials with larger carbon footprints are avoided or reduced. This push pull effect helps reduce the initial impact a yacht has.

Although this impact reduction is a step in the right direction, it is not always that simple. The sustainable choice is constantly on a scale in the yachting industry. What is the advantage to build a biodegradable boat if it has to be replaced every five years? To a certain extent, a point can be made for the current sustainability of Contest. A 1980's Contest is not a rare sight. Here lies the question: Build an unrecyclable boat which lasts decades, or a recyclable boat that must be replaced every now and then.

At organizational level, Contest is also working on its impact. Most of the energy that is used during the production process, comes from the solar panels on the roof of the wharf.

(Semi-) Customisability

Contest is a semi-custom yacht builder. This underlines their premium and client-based identity. However, they are trying to move away from this service. All clients are different individuals (that is why we are called individuals). This comes with different demands for each client for Contest. It results in a far from optimized building process. Each interference disrupts the workflow of the carpenters working on the shipyard. Furthermore, these requests often complicate the product. It makes it more difficult to guarantee the quality of the yacht and results in more defects.

The plan of action to minimize these requests, is to further develop their yachts. By smoothing out the current flaws and question marks, future customers do not have to make special requests. This will lead to the streamlining of the production process. Therefore, having more control over the quality and generating more margin on every sold product.

Another word on assembly

Assembly is a big topic within Contest currently. It is preferable if most of the work on the boat, happens outside of the boat. In the case that all the fitting of furniture is done within the boat, the carpenter has to carry all his tools and the wood in this cramped hull. Working in here is far from optimal either. The building process takes longer (R. Vijselaar, personal communication, 2022), and errors can result in damage to the hull. The ideal scenario would be to build the entirety of the interior next to the hull. Only letting the two parts meet at the end of the build process.

This realisation was a starting point in the further development of the flexible layout idea. It does not exclude the idea of customizability. On the contrary, it allows for people to make changes on a more detailed level. However, the use of compartments narrows the scope in which changes can be made. Thereby letting Contest consciously choose which parts are customizable.

Conclusion brand analysis

Contest has a history of reliable and beautifully produced semi-custom yachts. The underlying values of safety, comfort and quality, and innovation that Contest has had for the past sixty years are not likely (and not preferable) to change. These are the building blocks of the trusted character that they have with their client base.

However, not everything is to remain in the future twenty years. Their semi-custom approach should become more manageable. Therefore, stepping away from semi-custom and embracing configurations. For Contest it is a great opportunity to choose what can be altered. It allows customers to keep the feeling of fully customised yachts, but without the struggle for the shipyard.

With this future change in business operations, Contest can remain delivering the quality yachts they currently make. The building price will drop. Thereby allowing for more margin per product or more competitive prices. Also, this switch simplifies the building process through standardization. It becomes easier for the production team to build, as deviations from the process are eliminated. The advantage that results from this, is that the build quality can be guaranteed. Unproven or badly designed personalised features are no longer part of the yacht.

This change in the brand identity finds its way in the physical facet of the brand prism. It is the product that changes, all be it slightly. With the customizability still present, the personalising is not lost. Therefore, the relation facet remains the same. The other facets are based on the other values from Contest. The overall brand identity should remain the same. Staying true to the current Contest ideology.

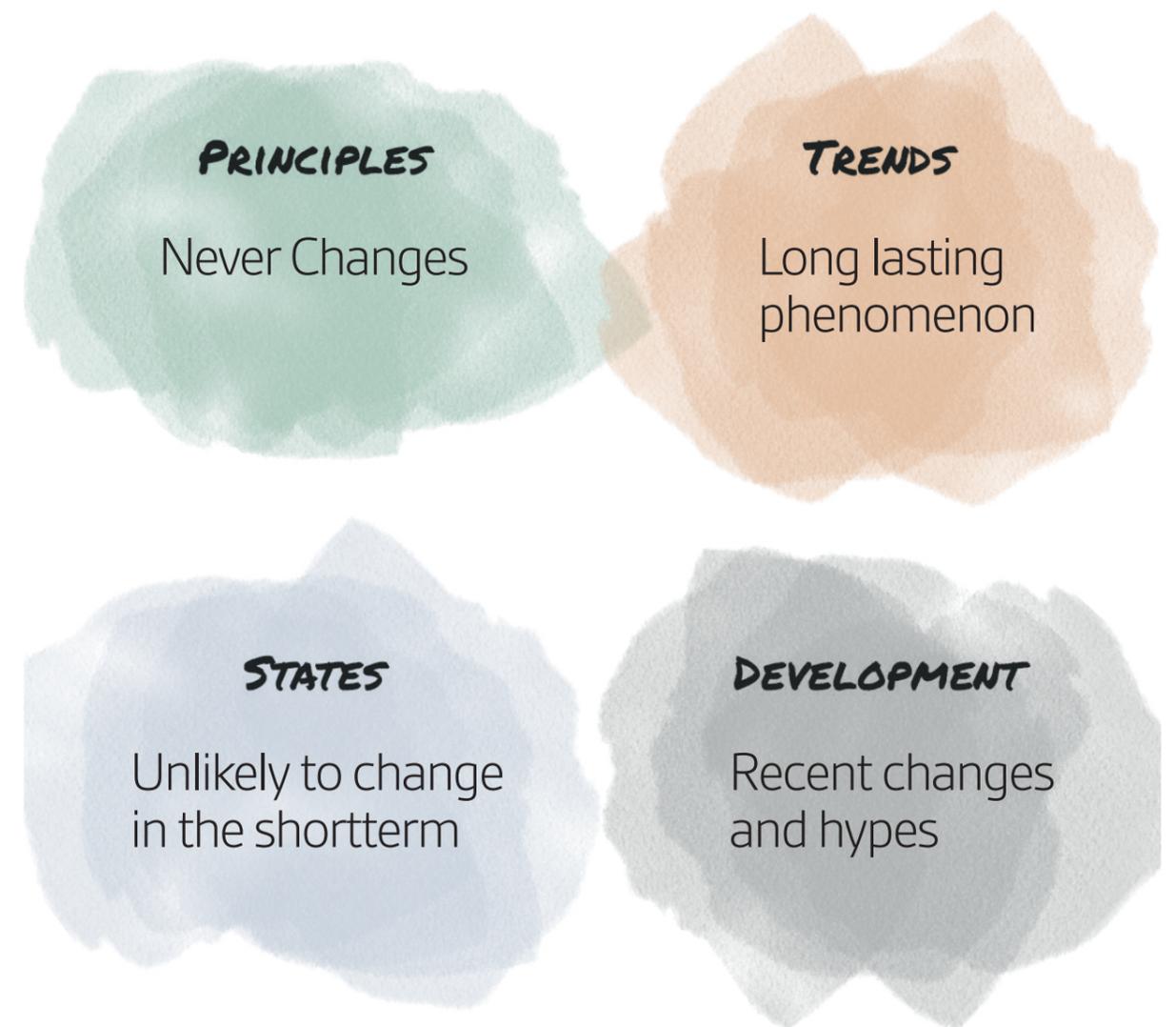*2.2 Building process of the 85 CS. Image by Contest.*

Use in 2040

This analysis is done to get an understanding of the future consumers. To understand what they want and need is paramount, as this determines their buying behaviour. Contest should remain relevant for the generations to come, if it wants to continue their operations. In this in-depth analysis, we look at the behaviour future sailors will have and how Contest can help sustain this behaviour.

Through the use of the earlier mentioned ViP-method, a well-substantiated prediction is done. For the method multiple steps are done that are briefly explained.

- Finding factors: Factors are pieces of information that can be seen as the building blocks for the rest of the process. Mostly they are sought within the domain. However, being flexible and creative with this domain can lead to interesting insights beyond the domain. It can positively affect the outcome. A factor is of one of four categories: Principles, States, Trends & Developments. These are briefly explained in figure 2.3.
- Formulating Clusters: The factors from the previous phase are selected on overarching equalities. If we use the previous metaphor: It is time to build a wall from these building blocks. The goal of this step is to identify themes that aren't visible at first. Often, these clusters reveal long time behavioural changes.
- Building a Worldview: In the framework that communicates the worldview, the clusters are seen relative to each other. The four different quadrants each communicate a different future behaviour.
- Making a vision statement: From the worldview of the previous step, one of the quadrants is chosen. In this project it is chosen on the basis of the most potential for Contest and closest to their interest. In the formulated statement, the goal of a future yacht is described as well as the means to reach this goal.

The domain in which the analysis is done is: "Life on a sailing yacht in 2040."

PRINCIPLES

Never Changes

TRENDS

Long lasting phenomenon

STATES

Unlikely to change in the shortterm

DEVELOPMENT

Recent changes and hypes

2.3 Category for factors.

Factor gathering

The first step in this process to find factors is done through desktop research, interviewing partners from Contest and talking with friends and family about the project. The diversity of the sources automatically helps to frame a broader overview. To provide further structure in this information gathering, the DEPEST method is used. A full overview of factors can be found in Appendix 4.

Clusters — sticky note board

Autarkic ideals (cluster)
- People need a distraction-free environment and have control over everything they are doing
- Employees expect more autonomy considering place and time of working.
- Full automation creates dependence. This is problematic when the system fails.
- During corona people bought smaller boats because they didn't want to be reliant on crew (ultimate freedom)
- "Het is goed om te streven naar veel minder afhankelijkheid, maar wie volledige autarkie nastreeft, kiest voor autisme."
- 'Tiredness and sleep is always an issue for solo sailors'
- Sailing yachts will become autonomous
- Context Magazine
- G. Brown, personal communication, March 16th, 2022

Balancing our surroundings / Feng Shui / Rhythmic of the sea (cluster)
- Plants reduce stress in people
- People need harmony with their surroundings
- Feeling of safety is a must if you embark on a long journey
- People need a different place for different tasks
- G. Brown, personal communication, March 16th, 2022

Choosing our own community (cluster)
- Starlink can connect people to internet anywhere.
- Recently the interest in 'intentional communities' has grown
- VR will allow for digital socializing spaces and digital offices in the near future
- Being part of a community heightens your happiness.
- Living in a community isn't free. Financial troubles are the main reason some communities cease to exist.
- We need to focus on long term happiness and sharing that with people
- Communities of practice allows for deepening learning, even online.

Travelling the world (cluster)
- The democratisation of airborne transport is taking flight
- If you travel the world, local can be anywhere.
- International travel will remain popular in 2040.
- "Millennials were excited by the idea of traveling the world while still employed."
- Digital Nomad visa's allow people to stay for an extended period of time in a country whilst working.
- People who sail do it for the journey
- G. Brown, personal communication, March 16th, 2022

Economy of the sea / "Blue economy" on the rise (cluster)
- "Blue economy" on the rise
- governments and corporations are expanding the production of green electricity from the sea
- Sailing is the most expensive option, to move for free. Opa.
- "while aquaculture is the fastest growing food sector right now and provides more than half of the marine products widely available to consumers."

Feeling the consequences of growth / The global sea level is rising (cluster)
- The global sea level is rising
- Land is getting dryer and the sea level is rising
- World population will grow to its maximum (9,73 billion) by 2064
- More than 200 million people might have to give up their homes due to climate change by 2050.
- Urban water demand will increase with 80% by 2050
- SPACE10

Clusters

To give structure to the factors, they are matched together based on more abstract themes than during the factor gathering. It reveals broader movements in our society. Below, the fourteen final clusters that are used in this project are briefly explained.

Autarkic ideals
We are striving for further independence. Having flexibility is the main reason for this phenomenon. Our ability to decide what to do and when to do it generates a feeling of freedom. Much of this demand is made possible by new technologies. By being less reliant on other people and systems, we have more control over our own lives. Recently, this call for independence took a flight during the COVID pandemic, as having a crew on a yacht resulted in problems in ports and travelling to other countries (Brown, 2022). Also, the home office results in more opportunity to schedule the day. Flexibility as experienced during these years, is a luxury we are not looking to hand in (Khalili, 2022).

Balancing our surroundings
Being in balance with our closest environment, helps us to concentrate, feel safe and have a relaxed conscious (Feng Shui). People need these primary feelings to further develop ourselves according to the Maslow pyramid (1966). By adjusting and manipulating our direct surrounding, we can create this for ourselves. We have been doing this for centuries. The Chinese philosophy of Feng Shui, which is over three thousand years old, stresses the inherent nature of people to strive for this synergy.
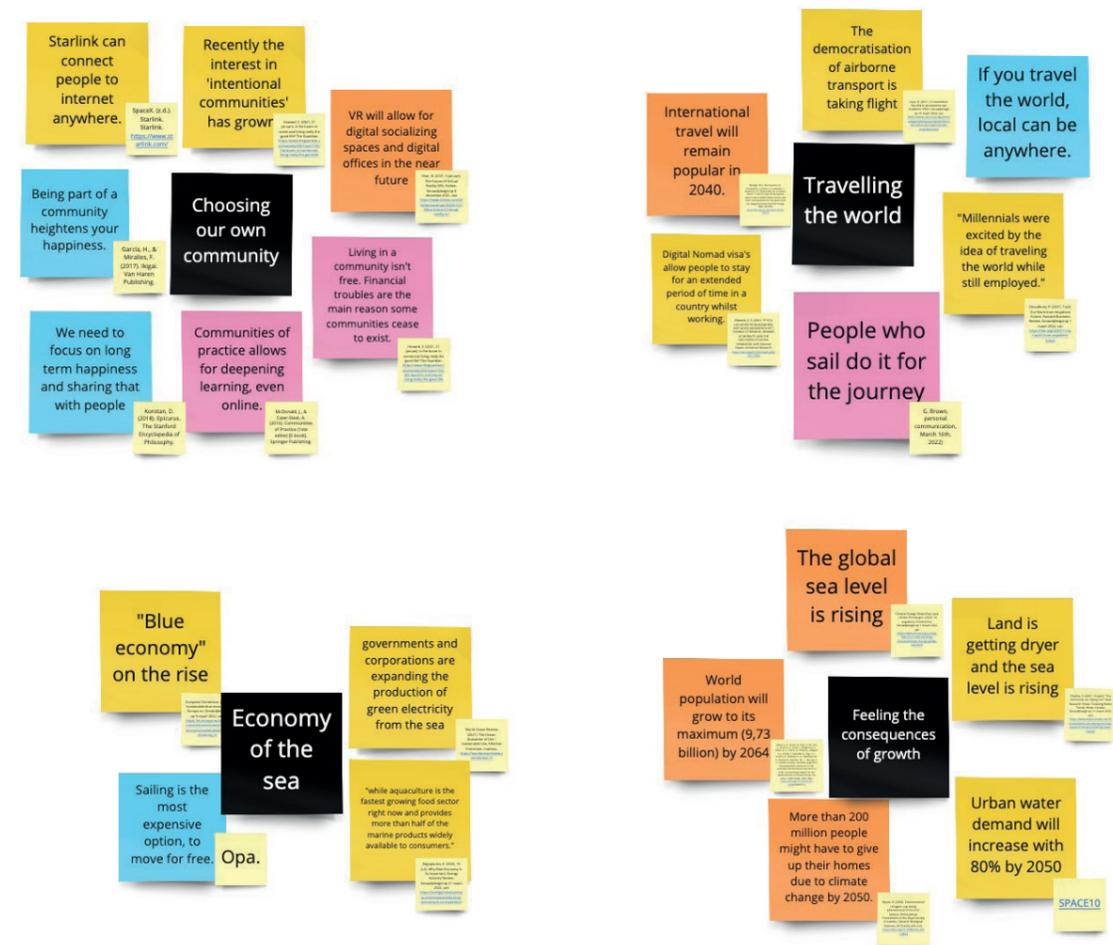
Choosing our own community
"Brommer kiek'n" (Lassche, 2017) is a Dutch documentary about the countryside youth. In this film, a girl says: "My friends from this village, will remain my friends for the rest of my life, because I will never leave." Probably a familiar saying for many elderlies. This look on life is likely to change for many people. The ability to work wherever we want, distances us from colleagues and specific locations. Humans are community creatures, so we will be looking for an inner circle with friends and family. The ability to choose our location also means that the future employee can gather his or her own community outside of work.

Economy of the sea
The current rise of the 'blue economy' allows corporations and governments to expand their profits to the seas. For instance, electricity generation from offshore wind turbines or aquaculture. The latter is the fastest growing branch in the food sector. With the consideration that the sea levels are rising, and the sea is only becoming bigger, this makes sense. It also shifts our perception of the ocean from a worthless barren landscape to a valuable source of goods.

Travelling the world
People have had the increasing opportunity to travel around the world the past decades. Therefore, we have become accustomed to it. Flying is no longer luxury transportation in the Western world (Kuys, 2021). It is also in line with the 'we want more' mentality. To see the far edges of the world has become available and therefore, we feel entitled to it. Also, the further rising globalisation means that international business remains growing. Travel and international relations will remain growing, and it will further send people out in the world.

Feeling the consequences of growth
The past century, humankind kept expanding. It still is. Till we reach the maximum inhabitants in 2064 (Vollsett, et al., 2020), it is a constant fight to find and provide resources to the people. After that the problems shift from logistical problems to financial problems. Aging and declining population means that the younger generation should provide for the much larger older generation.

Growing health problems

The obesity and the depression epidemic have been a growing problem in the modern world. Due to the rising expectations and the fast-paced world, people are losing track of their health. In combination with the rapid spread of new diseases, the health concerns remain growing as well. Improving healthcare and preventive care should make us combative in the future.

Increasing political influence

The current organized world that we live in, asks for tighter laws and regulations. That automatically means that politics are more involved in developing these interventions and enforcing them. On top of that, consumers expect companies to take a political stance in major events, like COVID or Black Lives Matter (Swant, 2021).

Recreating our footprint

Our environment is littered with trash from our parents and grandparents. This led to the current plastic soup, climate change etc. The visible impacts of this have slowly been changing our perception of our life on this planet. Impact done by our ancestors are made undone. For instance, by the great ocean clean-up or large-scale garbage collections. By consuming more consciously we are turning this around. Not only reducing our own impact, but also that of the previous generations.

Returning to physical life

Computers take up large portions of our days. The realization that people are near slaves to their screens, results in resistance with certain demographic groups. They are 'taking back' their lives by limiting their screen time and choosing for 'dumb' products when they have the chance.

Searching our inner happiness

The fast-paced environment and the high expectations that we set ourselves is negatively impacting our mental wellbeing. With the mentality that everyone must succeed in life, the strain is increasingly felt in the younger generation. Therefore, the new generation is more self-conscious and aware of their own happiness. Also placing more importance on their mental well-being.

Shifting to digital service economies

Digitalization is trickling down in every aspect of our lives. It is also greatly dictating the economic environment nowadays: Digital currencies buying digital services.

Synergy between people and planet

For long, we have been battling nature. Initially it was for our own survival. Now that the urbanisation has won, we are longing back for nature. We have an increasingly positive reflection towards it. We strive to handle it with more care and being aware of the fine balance it needs.

We are losing togetherness

The increased reliance on our digital being in life, results in less personal contact. Working from home means less personal contact with your colleagues. If some people still choose to go to the office daily, chances are that other people stay at home. In conclusion, we are losing togetherness. By choice or as a result of other people's choice.

Meta trends

As briefly explained in the introduction of this chapter, in the worldview the previous clusters find their place relative to each other in the future context. All clusters are placed at the far side of an axis. Multiple clusters at one of these ends, reveal meta trends. These trends form the backbone of the worldview/framework in the next step.

Acceptance of surroundings

The future worldview will be even more focussed on sustainability then our current society. The current Sustainable Development Goals (SDG's) should be fulfilled, the use of fossil fuels is massively decreased, and most countries are well on their way to climate neutrality. These are just some of the changes we can expect in the coming twenty years. Our consumer focus will also become sustainable focussed. In 2040 two groups of people arise within this factor.

First, the people that opine that technological progress is the solution to major future problems. They are referred to as "Creating our environment". Renewable energies, recyclable materials and smart technologies should reduce and contain the environmental problems humankind faces around then. This idea of a makeable world drives innovation further than before. Therefore, the comfort of living increases as well. Nature and the living environment are seen as separate entities.

On the other end of the axis, is the mindset that people need to go back to basic. Their opinion is that consuming less and more concisely, results in a better planet and environment for generations beyond the scope of this project. These people see mankind as a small part in the holistic world. As they are just a small cog in the machine, they find it easier to surrender to the environment. Therefore, these people have a near religious connection with nature.

Willingness to share

With the increasing world population, private ownership becomes harder to manage. Also, the idea that we have to show the world our happiness through digital platforms, clouds our ability to talk about our insecurities and doubts. In this meta factor the difference between the acceptance and ability of sharing is distinguished.

On the top end of the axis, carrying one's own responsibility, are the people that prefer to share as little as possible. The products and thoughts are their own. They take good care of their material products and want it to be in good condition. Other people are expected to treat these belongings in the same matter as the owner. The fact that this is often not the case, results in the dislike for sharing services.

The thoughts they have are also private. They do not feel comfortable sharing their ideas and problems as they find it is their own burden to bear. For many of these people, inner peace is difficult to obtain due to their closedness.

The bottom end of the axis, embracing diversity of people and systems, is characterised by people that are open for sharing. This side is less materialistic. Sharing services are appealing due to the reduced cost and the carefree experience. Maintenance, cleaning and other aspects of owning a product are no longer within their activities. It allows them to spend more time on things they find fun and important.

It is also easier for them to share their lives and personal stories. Therefore, being content with themself and their lives. The control over their mental well-being is more important than the materialistic mindset the other side of the axis is characterised by.
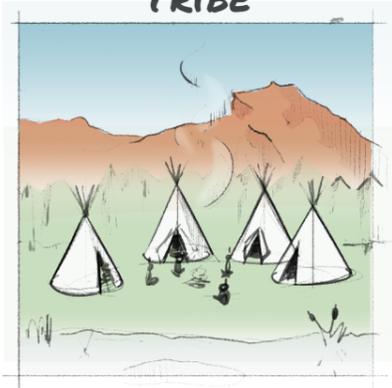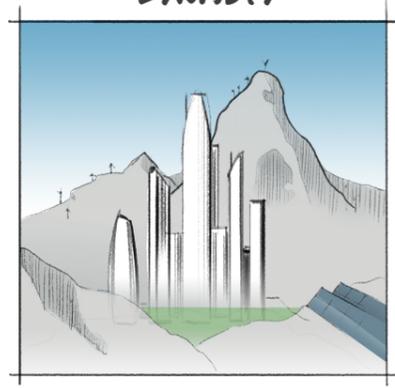

2.4 Meta trends.

Embracing diversity of
people and systems

TRUSTING
TRIBE

DEVELOPING
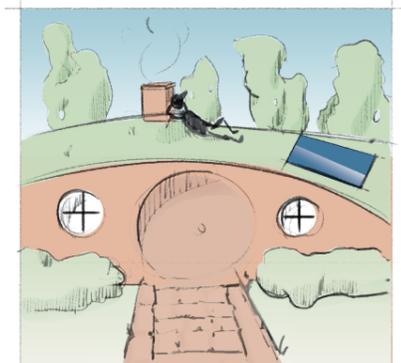DYNASTY

Willingness to share

Living with the environment

Creating our environment

Acceptance of surroundings

LONE
RANGER
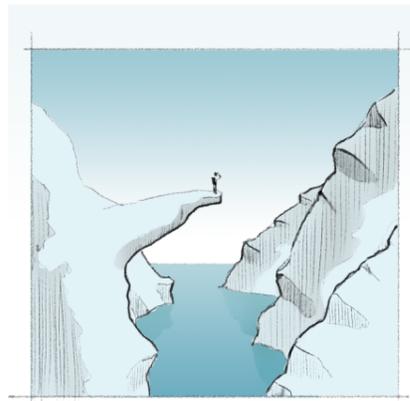
FACILITATED
SOLITARY

Carrying ones own
responsibility

2.5 Formulated worldview from meta trends.

Worldview

The two axes, determined by the meta trends, divide the future behaviour within the domain in four directions (as seen in figure 2.5). These behaviours, as outlined by the axes, each have their own traits. They are each discussed and explained.

Facilitated Solitary
• Hedonistic: Focus on individual needs and wants.
• Progress measured by personal gains.
• Technological progress in favour of individual comfort.
•

This behaviour is characterised by some sort of hedonism. Living like a Facilitated Solitary is about self-preservation. Choices are made on the basis of the potential personal gains. Although not necessarily antisocial, their focus lies on their individual happiness and wellbeing. The comfortable and easy choice is therefore often seen as the best. If something is not up to their standards or desires, they are easy to walk away and choose for something that gratifies their needs.

Whilst sailing, they enjoy cruises and daytrips. They are goal oriented and impatient. If the weather does not allow for a perfect course, they just as easily switch on the engine. The Facilitated Solitary is likely to choose the safety and comfort of the port at the end of the day. It is important that they experience convenience during the use of their yachts, as these are the traits they value the most.

Their drive for comfort comes at a price. It is no problem for the facilitated solitary. They have serious fixed jobs and are high up in the chain of command. This demands their attention, and they need to be able to quickly respond to work related emergencies.
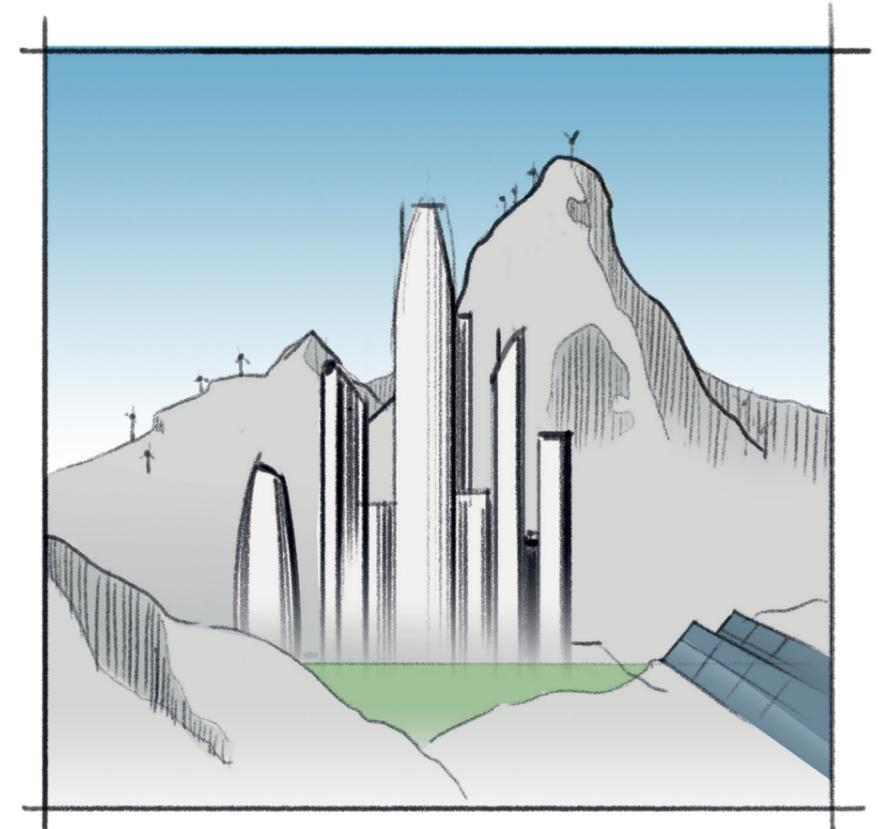
2.6 Developing Dynasty.

Developing Dynasty
• Focus on increasing group well-being.
• Progress measured by wellbeing and comfort of group.
• Technological progress in favour of community.

Their drive for innovation and ability to adjust their local environment to their liking results in an ever-changing community characterized by progress. These people are willing to use shared mobility and shared ownership. The mindset of the manufacturability of the planet can create friction when sudden events that are bigger than humankind (or in the case of diseases, smaller) ask for a step back.

On the water the Developing Dynasty is looking for predefined routes and comfortable harbours. In the current context, this can be compared to flotilla sailing. For the future context, this service has to cover the globe and extend itself beyond the current recreational purposes.

These people are working on fixed positions also. Their job might not be as high up as the Facilitated Solitary, they still have a comfortable income. Also, their work is more team oriented. It results in responsibilities towards colleagues, something the Developing Dynasty is not bothered about.

2.7 Lone Ranger.

2.8 Trusting Tribe.
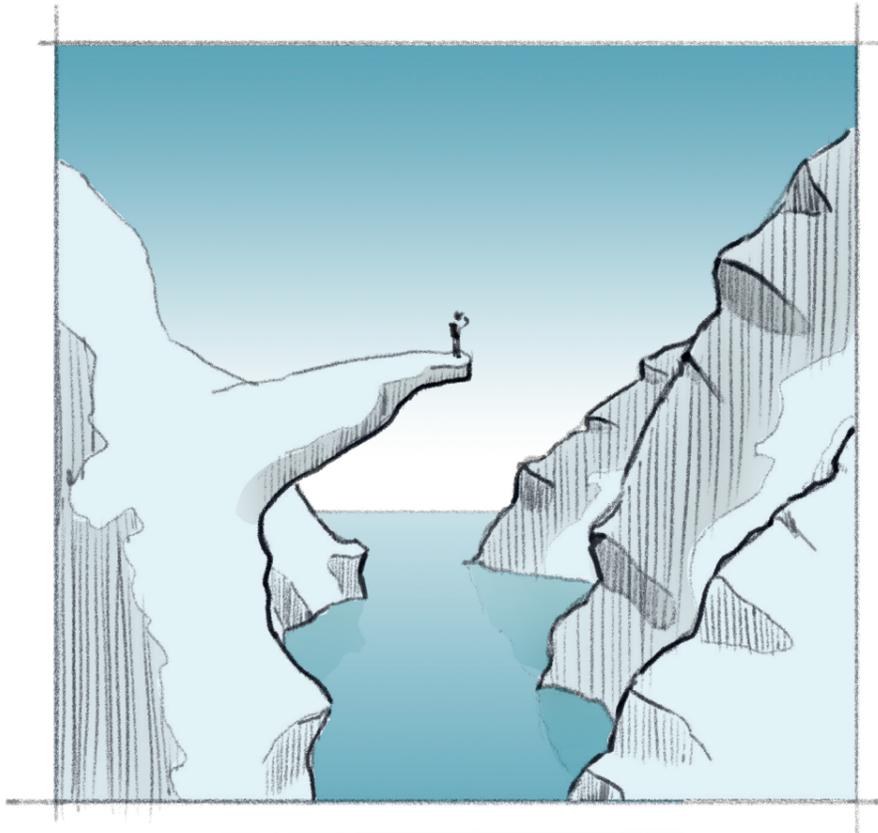
Lone Ranger
- Focus solely on nature.
- Progress measured by the increase of nature.
- Technological progress in favour of healing nature.

The Lone Ranger enjoys the ultimate freedom. He or she does not want to be limited by other people or the habited world. They are willing to defy nature and be in awe of her grace and glory. It results in a close and intimate relation with the environment. The Lone Ranger prefers solitude and intimate groups over larger groups. Their independence allows them the freedom to go wherever, whenever.

These people have a clear reason while sailing: exploring as much of the waters as their boat and the weather allows them to do. 'A patient captain always has perfect weather,' is true in a way for this person. However, this captain does not need patience. He or she lets the weather decide where the next destination is. At night they prefer picturesque and secluded bays.

Their drive for independence can also be found in their preference considering work. The Lone Ranger works individually. Most of the revenue comes from freelance jobs. This allows them to only work when they find necessary and choose the jobs they like. In line with their never-ending chase for ultimate independence.
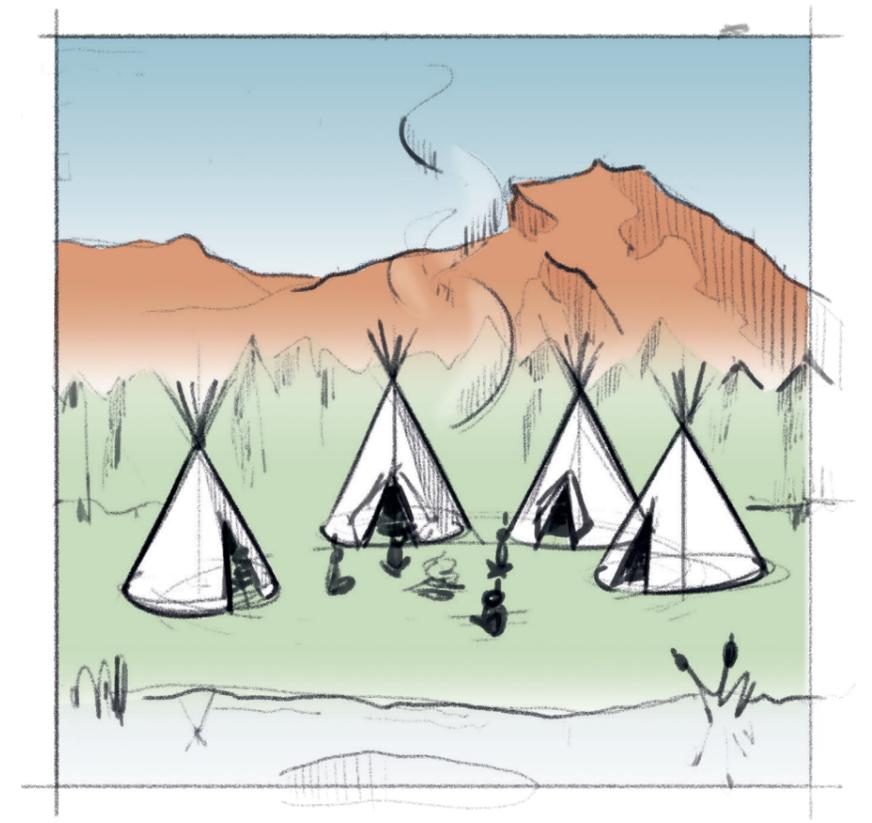
Trusting Tribe
- Focus on synergy between tribe and nature
- Progress measured by the fulfilment of common goals.
- Technological progress in favour of efficiency of resources.

Finally, the Trusting Tribe. People that show this behaviour can be seen as a real tribe. Being part of a community consisting of these people means providing for its survival including the members. Survival in the future scenario means being able to be financially stable and in good mental and physical health. Everyone has to contribute to the overall wellbeing of the community. As long as this community is taken care of, it is a stable safe space. Their dependency and respect on nature leads to the acceptance of the conditions.

The yachts of the Trusting Tribe owners should facilitate the same "go anywhere" as for the Lone Ranger. The difference is in their sharing behaviour. Being anchored in a bay with other yachts is welcomed by the Trusting Tribe.

For these people, work is yet another community of which they are part. They enjoy working with colleagues, all be it in virtual spaces. As this teamwork is important for them, they are employed with a company that allows them to work remotely. However, the Trusting Tribe is also in favour of their flexibility. If they are settled in a nice area, work is not their main concern.

Quadrant choice
For the rest of the project, one of these behaviours will be used as guidance. The most potent group is chosen, in this case the Trusting Tribe. This group was chosen because of their initial diversity and demand for flexibility. Their less goal-oriented life choices result in a Joie-de-Vivre approach to their daily goings.

It is their diversity and the acceptance of being a community which makes them an interesting guideline. Their willingness to share facilities allows for shared ownership services. A direction that Contest admitted being interested in and is keen on exploring.

Also, their connection with nature results in a drive to explore the world, without the safety of the port. It should result in a synergy between the boat and the crew. The build quality of the yachts and the mission statement (Yachts to let you adventure, to fulfil your dreams) provide for this explorative mindset.

Analogy

To help establish further interaction characteristics of a final solution, it can be helpful to formulate an analogy. In the case of this project specifically, an indigenous American tribe is chosen (much like the Trusting Tribe). It communicates the idea of a common goal, whilst still having a personal area. Furthermore, their inherent bond with nature is a central theme in sailing as well.

In this analogy there are a few features which can be translated to a final concept. These are not to be taken literally, their values and qualities however should be integrated into the design.
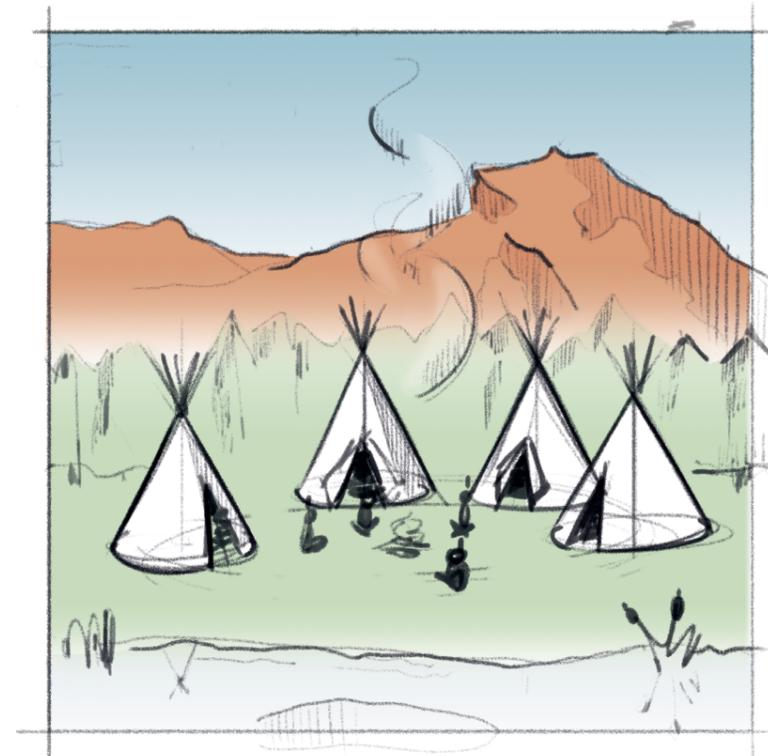
2.9 Trusting Tribe as the analogy.

- **The tribe:** A group of individuals that are heavily bonded to one another. They share their meals, belongings etc. Most importantly, they have a common lifestyle. In the final design, the feeling of togetherness with mutual respect and responsibility should be unified.
- **The campgrounds:** On the campgrounds the tribe members share their time. Here they cook, share their stories and feelings and have important meetings. Most likely the tribe feeling finds its origin in this physical space. The concept should host this space.
- **The tipi:** This is the personal touch to an otherwise fully shared lifestyle. For every tribe member, this is a place to retreat and enjoy privacy. The members of the Contest tribe should have a place to withdraw for a moment of privacy.

In the ideation phase, the goal is to find an idea which combines these features in a contemporary and harmonious way.

'WE WANT PEOPLE TO UNINTERRUPTEDLY EXPLORE THEMSELVES AND THE PLANET THROUGH AN OPEN AND FLEXIBLE YACHT.'

Statement

To facilitate for the chosen quadrant of Trusting Tribe, the above-named statement is formulated. It communicates the goal of the future vision, and through which means the goal should be achieved. The current vagueness gives the ideation and concept phase enough space to develop itself within a clear vision of flexibility and openness.

The focus of the statement is to allow people to remain in touch with themselves, as well as their loved ones. 'Open' in this statement means the ability to spend time outdoors. As well as the ability to share thoughts and feelings. The latter should strengthen our feeling of mental wellbeing and our personal positivity.

All this whilst spending time wherever the Trusting Tribe wants. The yacht should facilitate this innate drive to communicate and explore the beauty our world has to offer.

'Flexibility' should provide the ability to choose your course and next destination without having to worry about its capabilities. Also, it should facilitate possible guests or shared ownership.

With these values considered and well-integrated in the design the user should feel the ability to go anywhere. This fulfils the goal described in the final design statement.

Analysis conclusion

With both analyses done, we get a better picture of the future consumer behaviour and how Contest can fit in this image. Two separate conclusions are formulated, as well for the brand as for the future use. The goal is to let Contest stay true to their brand identity, while evolving towards the future and facilitating these future consumers.

Fortunately, it seems that the future has a market gap that fits the brand. The demand for more open and flexible solutions and the increasing Joie-de-Vivre lifestyle, merges Contests challenge for better assembly and their brand values of safety, comfort and quality and innovation seamlessly together.

'Flexibility' and 'open' have a different meaning depending on the stakeholder. Flexibility can work in many ways. For the company, it will be about better assembly and configurations. For the future consumer this will be about the ability to be versatile about where to go with whom. The solution for these demands can be, and should be, the same.

The same goes for 'open'. While the company can use it as an opportunity to further develop their interior design together with their partners. The users can enjoy time together in an open space which seamlessly blends with nature.

For now, these values are leading. They have the ability to disrupt the current yachting industry, by providing new design concepts that are currently unknown or unused. However, it is paramount that the company's ideology remains in the concept. Together with Contest and their partners, a suitable design shall be made that pleases all stakeholders.

3. Ideation

The analysis provides a solid foundation for the further design development, as well as inspiration. In this chapter, the chaotic mind of the designer is explored in sketches with accompanying text.
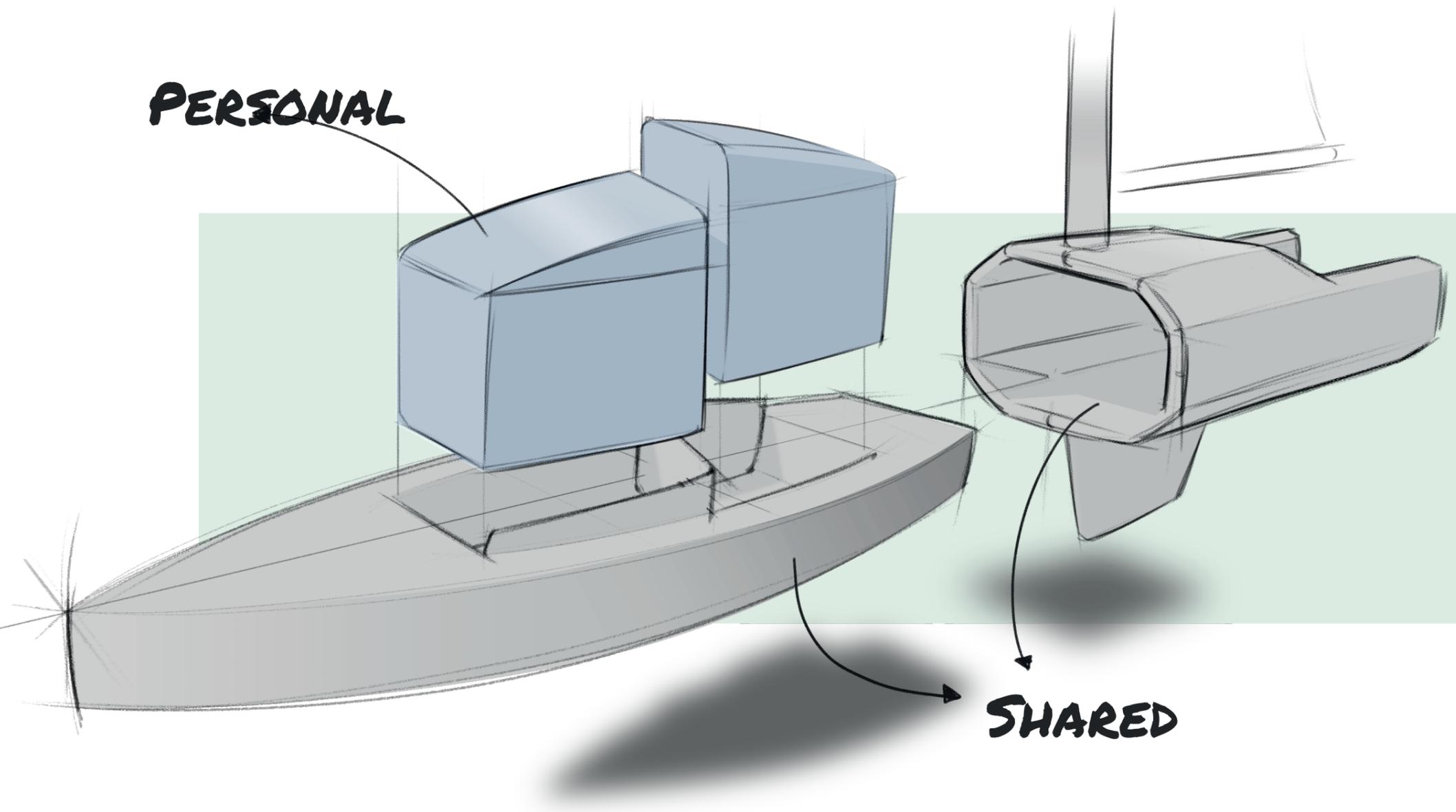
Shared ownership

Through the use of the analogy, it becomes clear that the sense of community is paramount in the final design. Contest pointed out that recently there has been interest from consumers side in shared ownership. Although it might seem a daunting step from conventional sales, it should seriously be considered as a future business model. Furthermore, this shared ownership is in line with the earlier named analogy.

There are plenty of reasons to share a yacht. Perhaps you want to sail with family or friends, work on your start-up idea with a colleague, the list goes on and on. On top of the social aspect, of course there is a beneficial financial side as well. Dividing the purchase price by two or more drastically decreases the initial step to make such purchases.

However, it is a strong personal belief that people should maintain a sense of ownership whilst using a product. Besides Contest's strength of building incredibly quality yachts, is their semi-custom approach. As discussed in the analysis, this characteristic should become/remain maintainable.

In the step from analysis to ideation, the inclusion of shared ownership is integrated into the project.

Personal

Shared

3.1 Shared Ownership, ideation sketch.
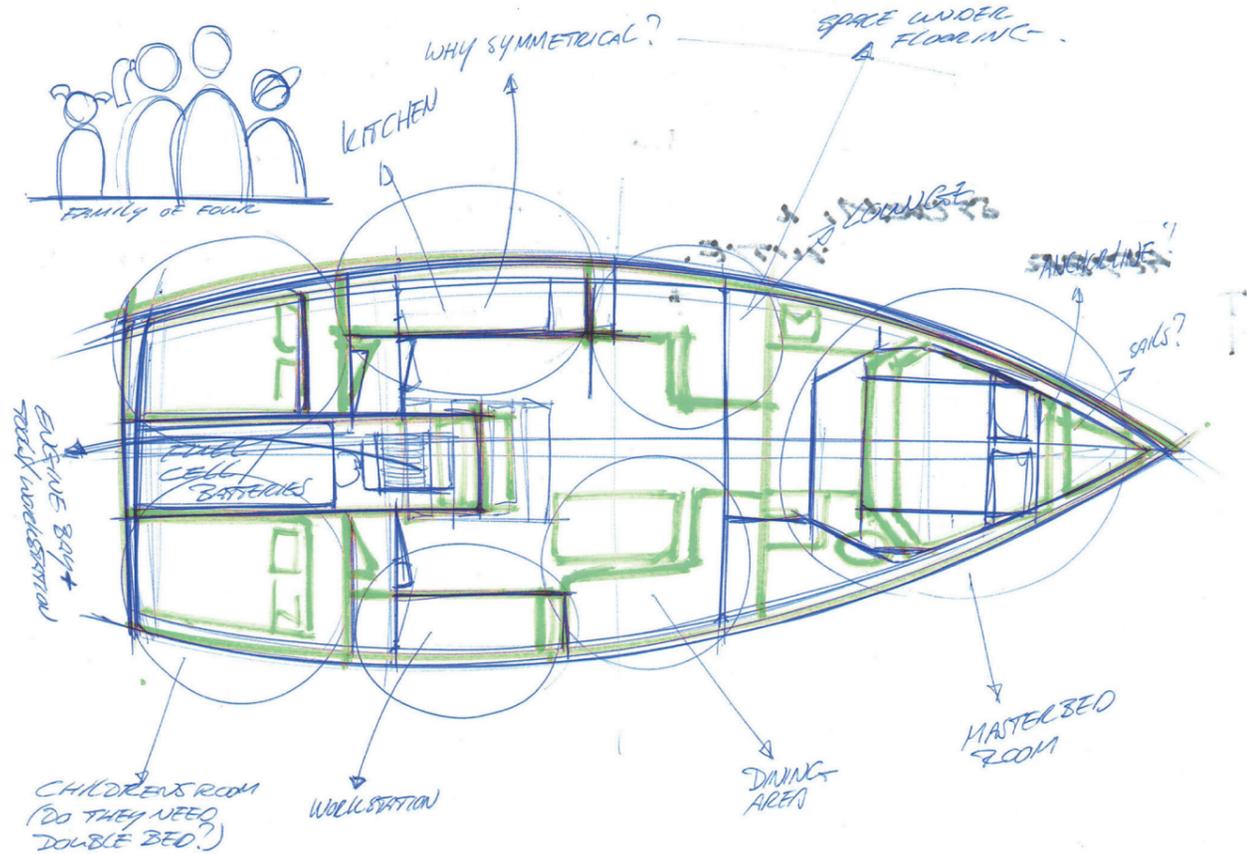
3.2 First Idea Sketch for Interior (Day 1 drawing, as requested by coaches).

Idea sketches

From the first day of this project, sketching has played a major role in the creative development of the project. Each idea finds its origin in a drawing.

As with all projects, the first ideas were vastly different. From an uninspiring new interior layout (Figure 3.2) to more outside-of-the-box ideas like floating layover points which can be used as hotels (Figure 3.3). As time goes on, the ideas are narrowed down. Decisions on directions are made in dialogue with Contest, their partners and the coaches of this project.

An initial idea, on which further ideas are built, can be seen in figure 3.4. Coincidently, this was also one of the first real ideas formulated in the project. Multiple harbours create a web around the world where Contest Tribes are stationed. On these stations, sailors can change yacht or hop on or hop off. Also, yachts can be repaired, maintained and resupplied for further travel. This idea is further ill-defined and does not yet embody the analogy from previous chapter. It can be seen as a preliminary service idea on which the embodied final concept can thrive.
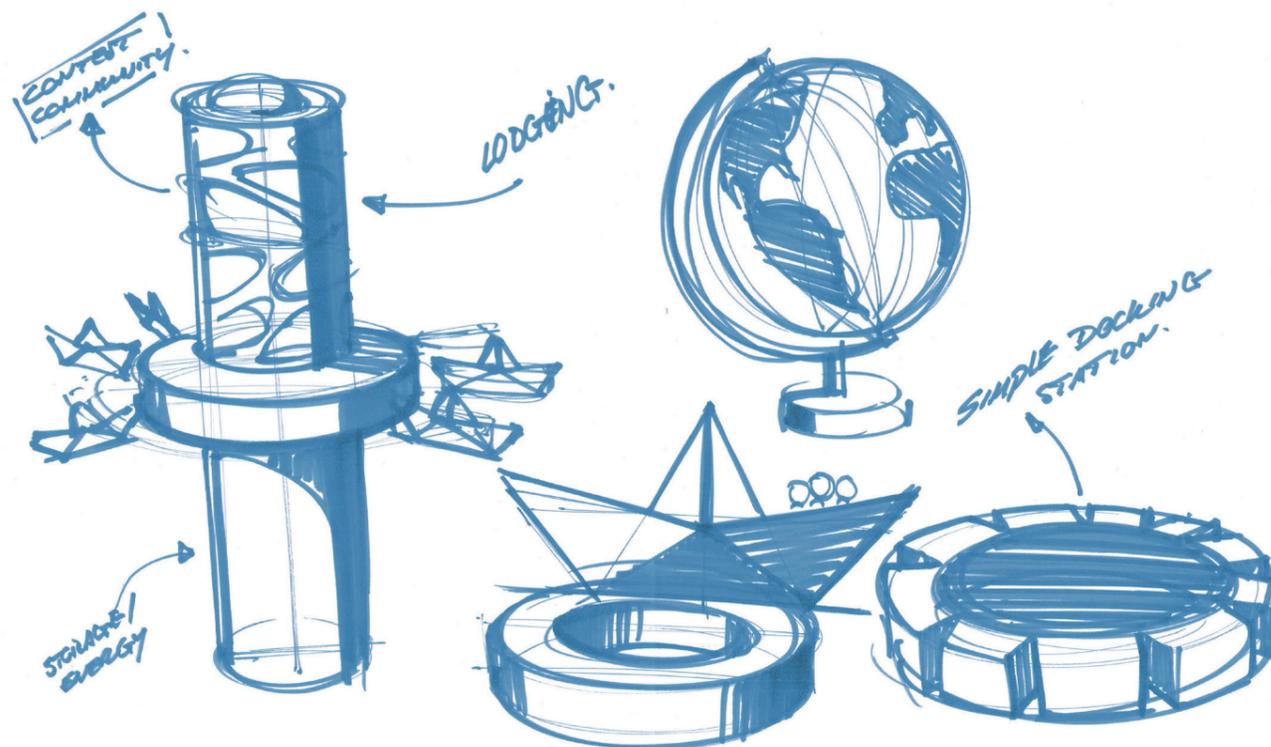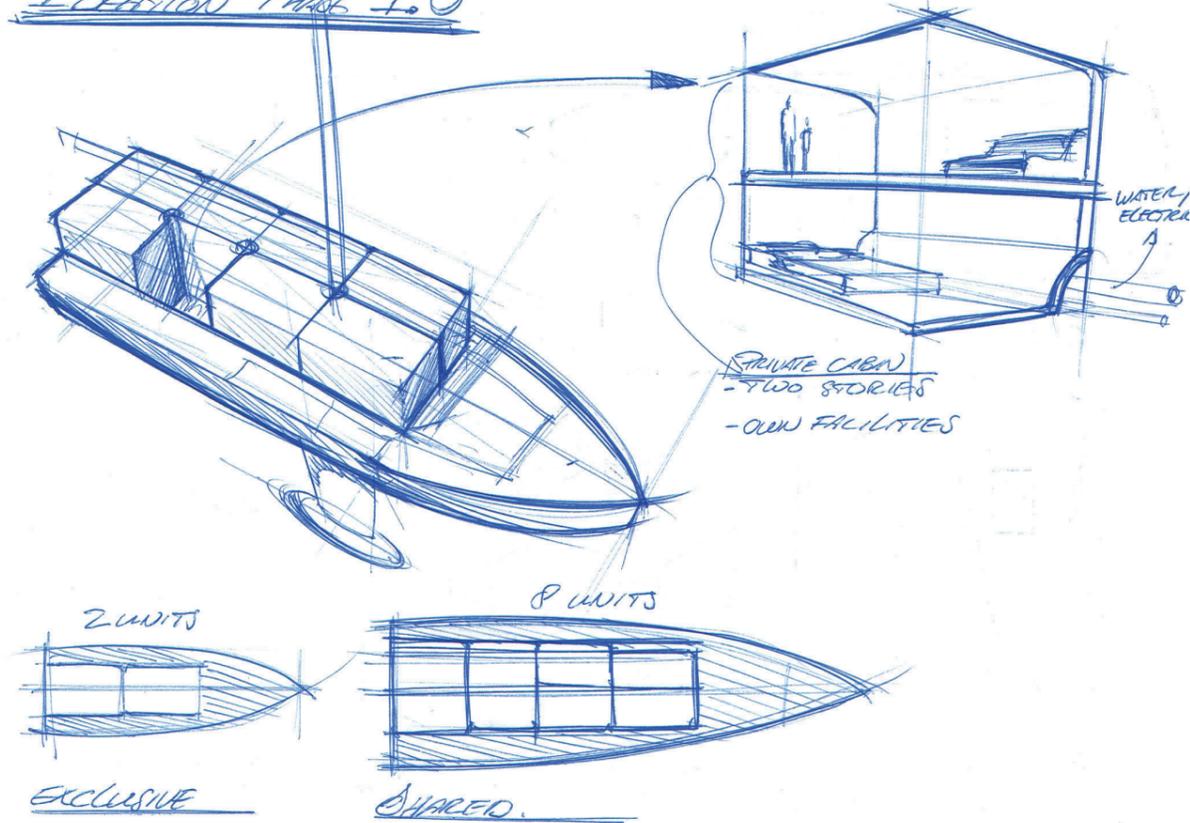

3.3 Layover point idea.
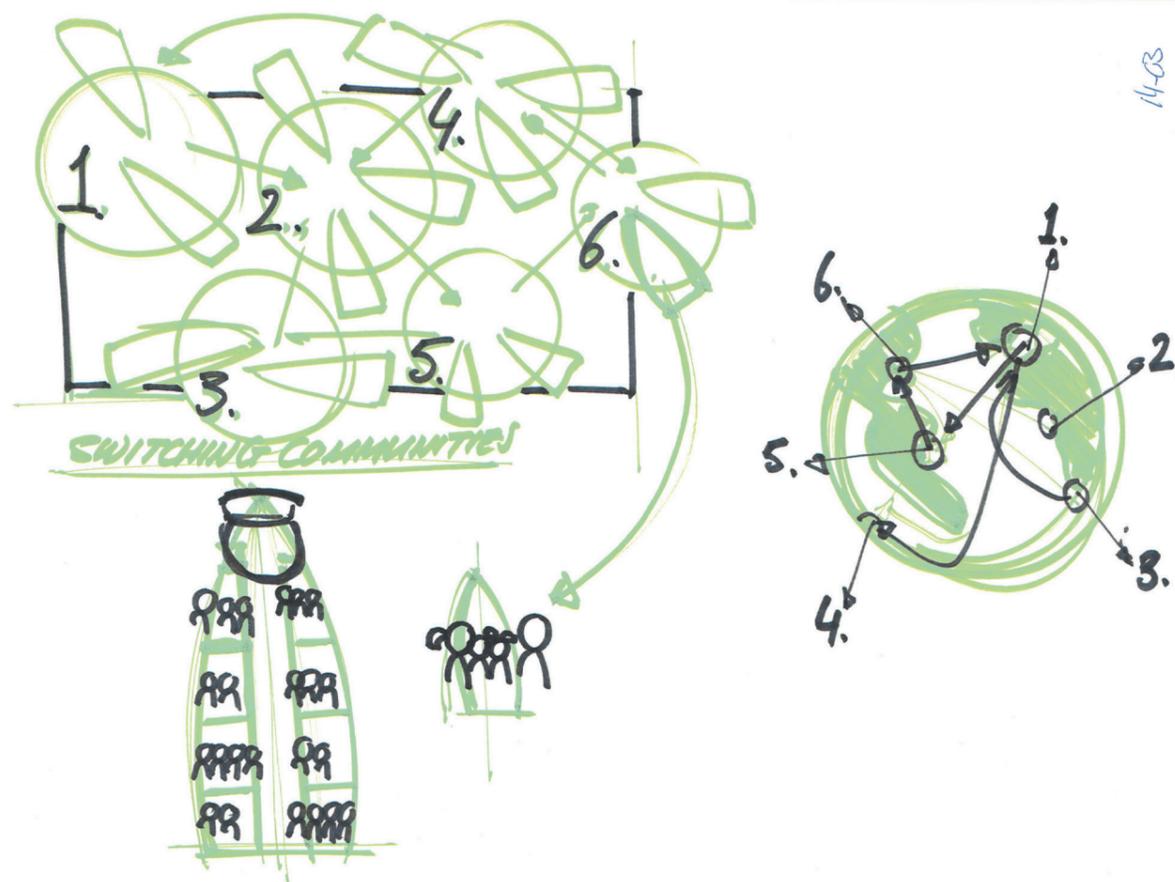
*3.4 World Web, with multiple families aboard.*

3.5 Initial Module Sketch.

During this process of going back and forth with ideas, one idea becomes more prominent. The ability for Contest Tribe members to own a personal cabin which fits on multiple yachts (initial sketch seen in figure 3.5). For a sailor, this personal space can be explained as his or her tipi.

In figure 3.6 a conventionally shaped yacht with a single module is drawn. The module is removeable. However, this loses the idea of a shared camping ground from the analogy. On page 47, drawings for larger ships with a futuristic appearance are pictured. The size approaches that of commercial ships and therefore needs a captain. It distances the tribe members from the flexibility value.

As sketching moved on, another important question arose: how many entities should fit on a yacht? In the initial sketch of eight single units, the yacht should become too large for Contest to build (considering regulations and the size of their current wharf). For this reason, it is chosen that the maximum length of a future yacht does not exceed the current largest yacht of 85 ft. Preferably even within Contests main market, the 50 to 60 ft range. The scope hereafter became to design a future concept which holds between two and four modules.
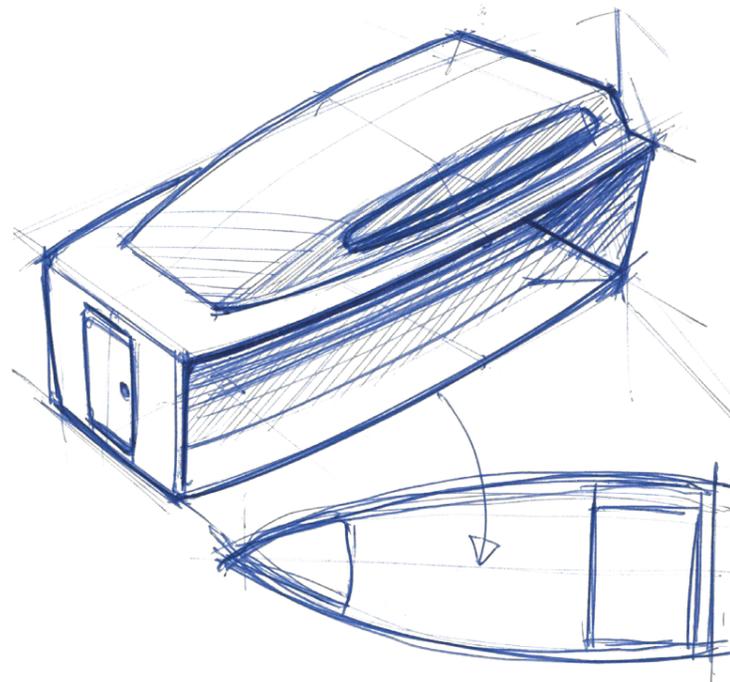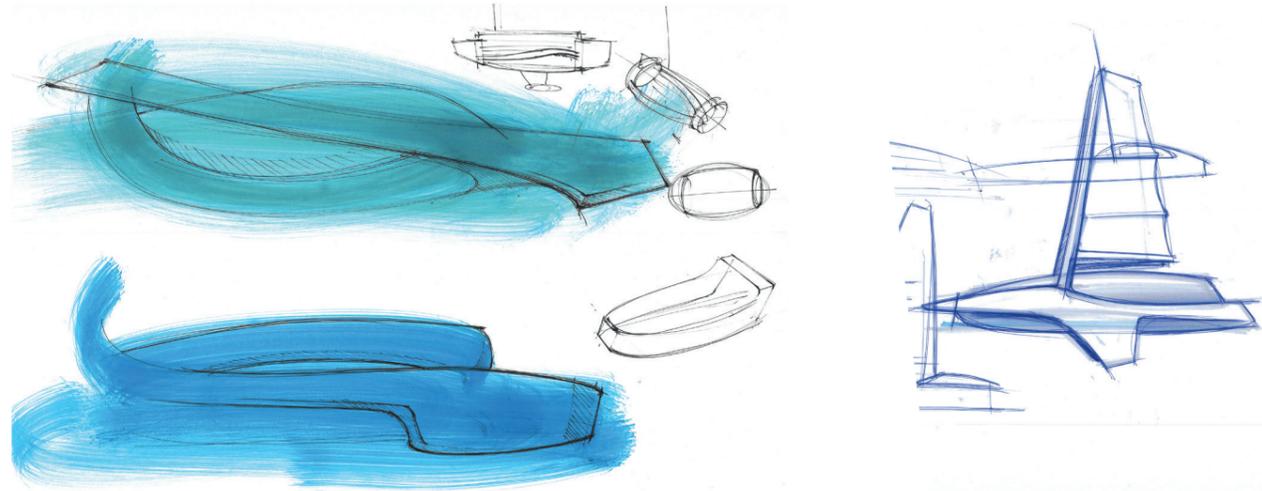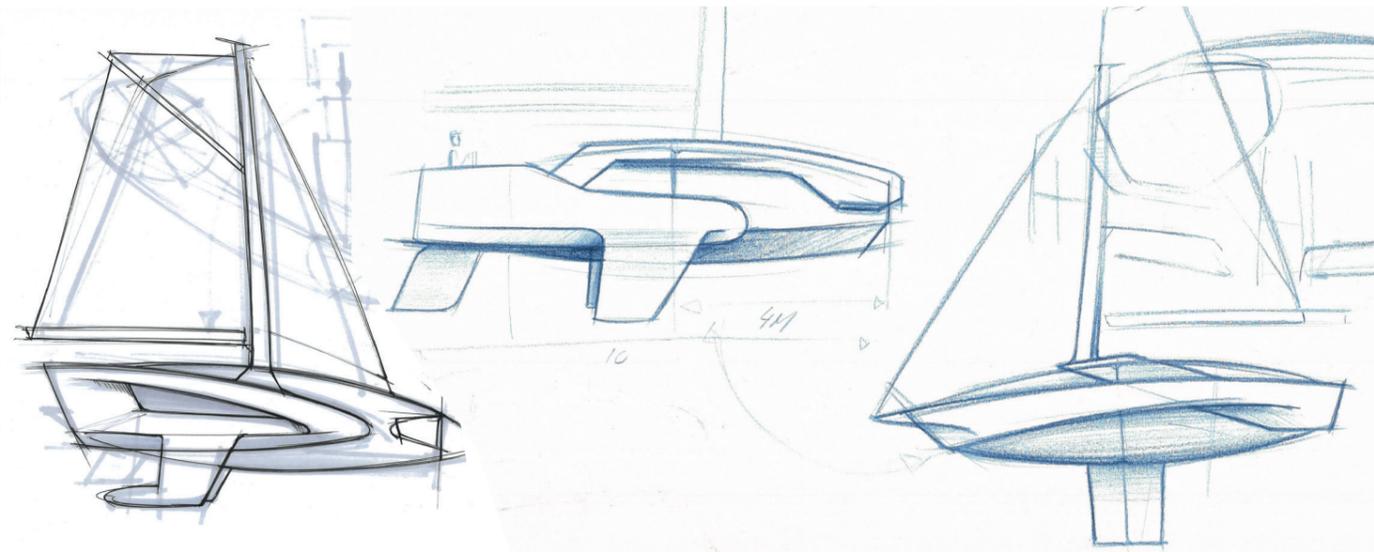

3.6 Single module yacht sketch.
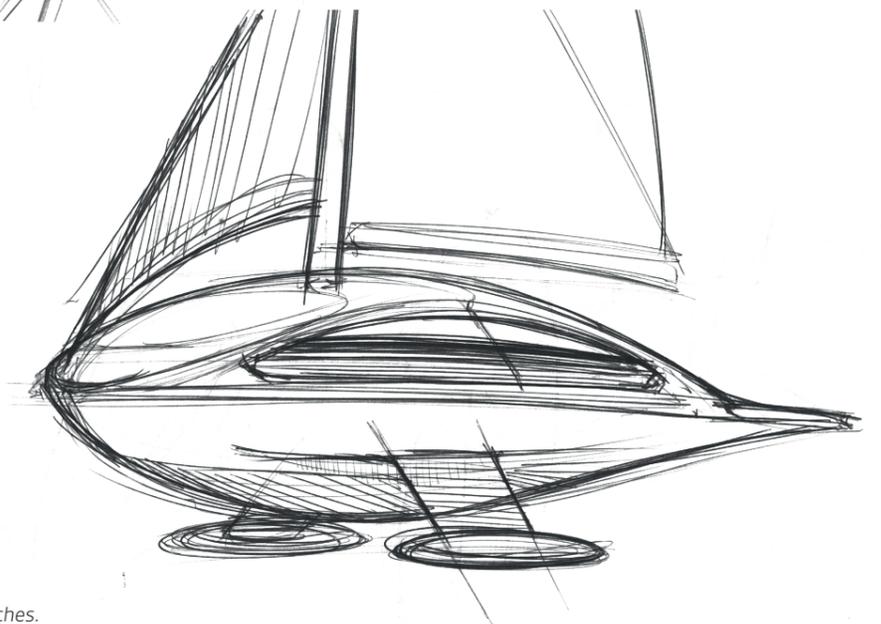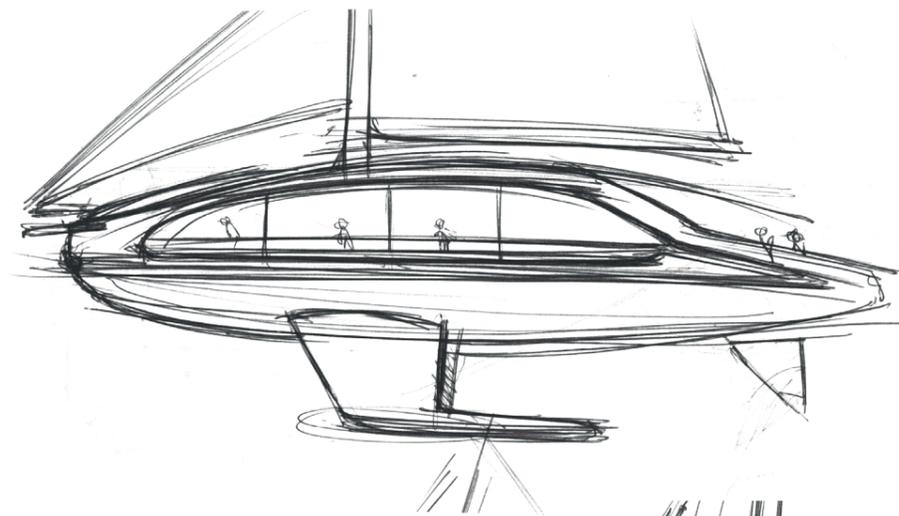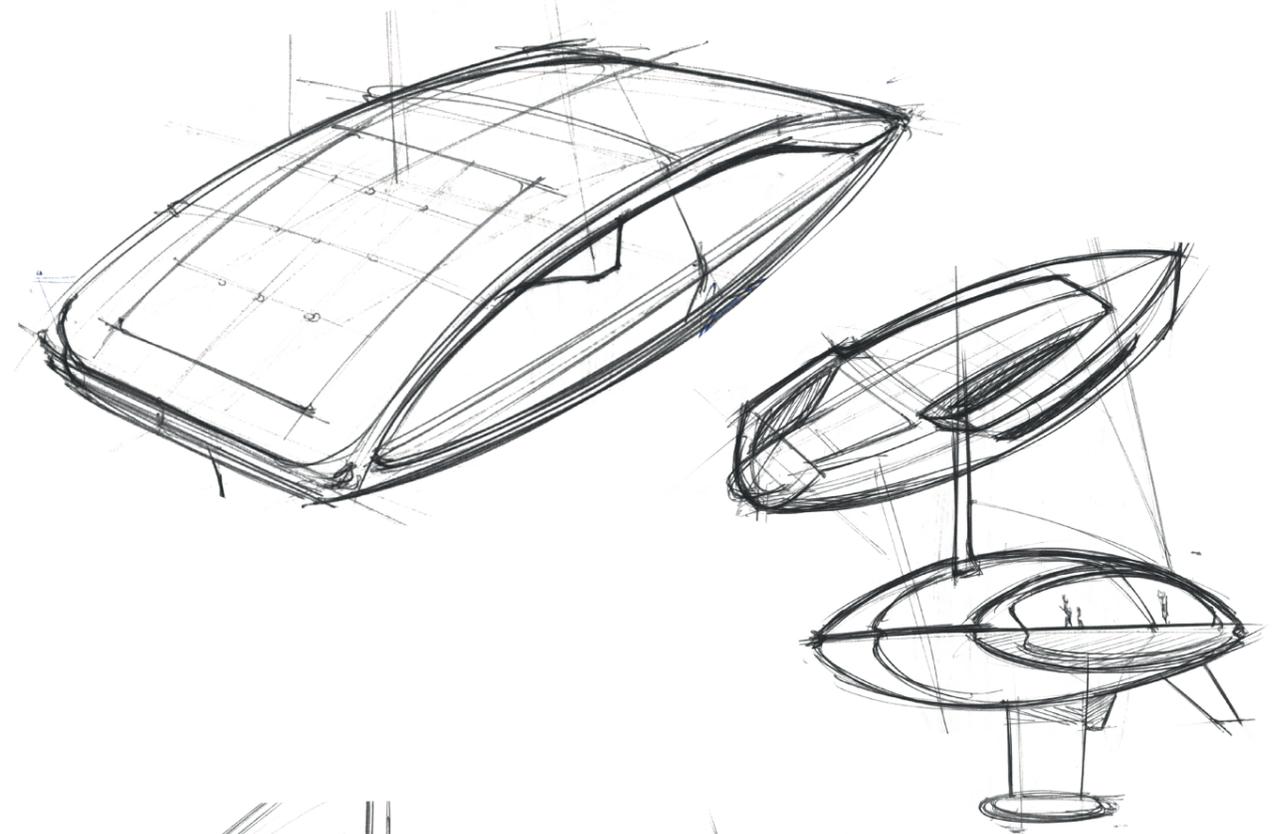
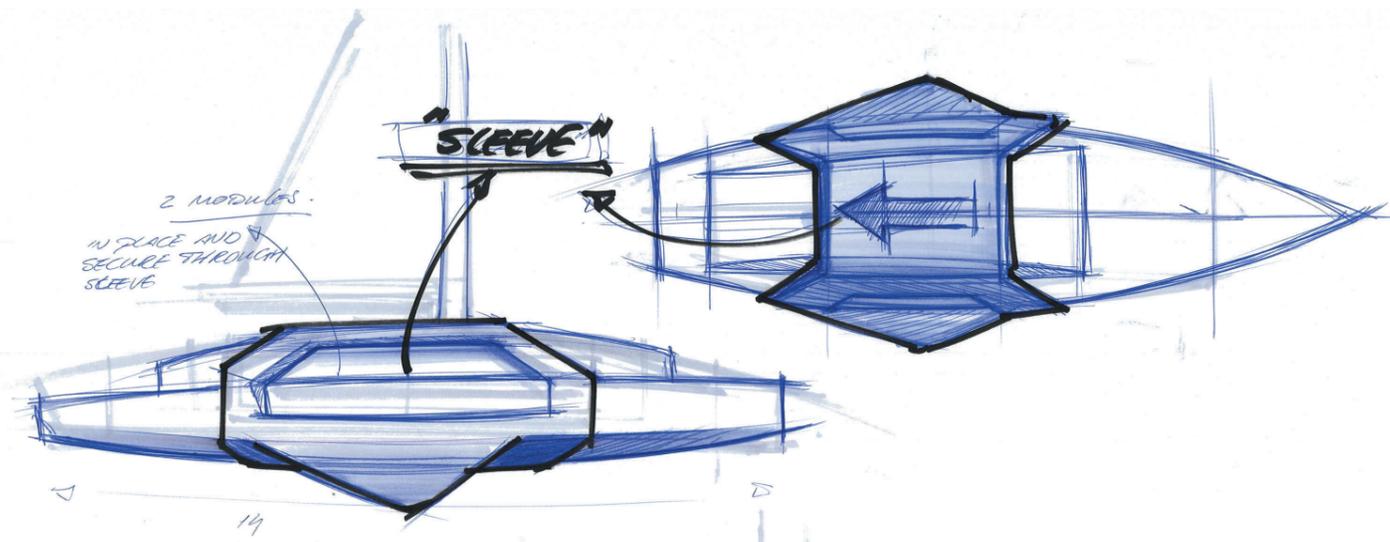*3.7 Futuristic styled yachts with modules sketches.*

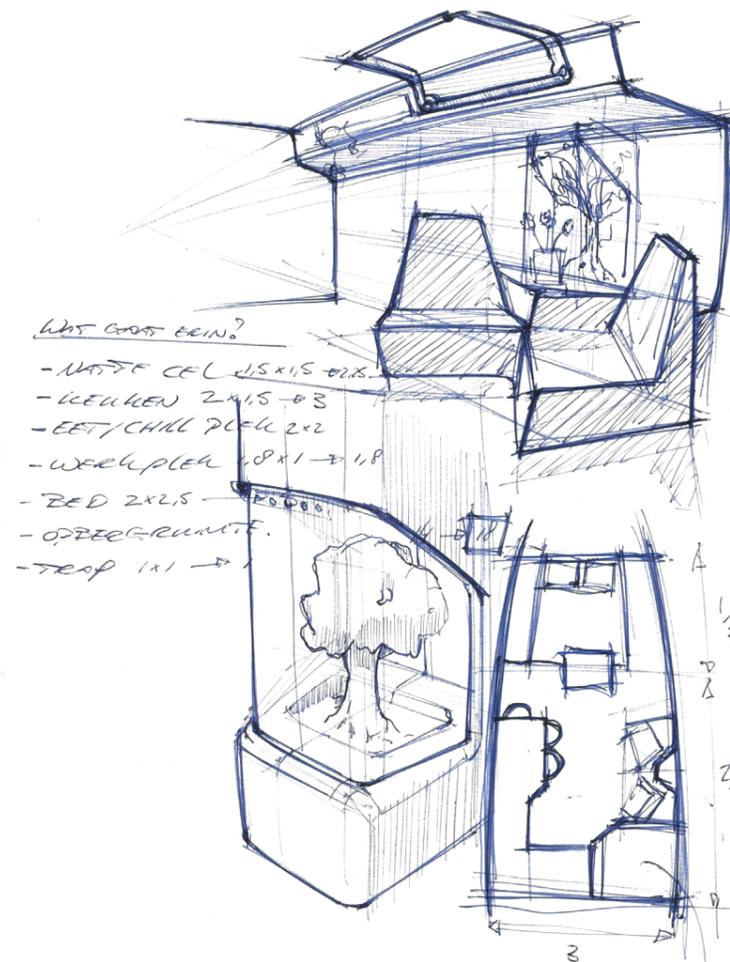*3.8 Exercise to get an open frame of mind, of which new ideas are generated.*

3.11 Duo assymetrical module idea including the sleeve concept.

3.9 Hull as framework with modules as part of the structure.

3.10 Sleeve to lock modules in place.

3.12 Sketch interior of first module idea.

To find a suitable embodiment and styling of this frame of mind, explorative drawing techniques are used. In figure 3.8 one of the results can be seen. From this sketch, a whole load of new ideas started, seen on these pages.

A wireframe like hull that houses two modules. The reason why this idea is dismissed is because the Florence CS would not be able to operate with a single unit in place. Also, all the systems should be within the module. To ship empty water tanks and batteries for every layover is excessive. It is chosen to include all systems and a shared space in the Florence CS, non-removeable.

The first embodied module idea consists of two identical pods that fit in the front and the rear of the hull. Due to their symmetry, it becomes possible to place the pods in each direction facing opposite direction (as seen in figure 3.11). The idea includes a core element which contains the sail and keel.

As it is a first step within the module idea, it is far from perfect. The main reason it is dismissed, is because with the pods in place there is a surplus of space within the hull. On top of this inconvenience, another big problem is in the way. The mast has to be attached to the bottom of the hull. Although innovation can bring humankind a long way, it is unlikely that this current fact is going to change in the near future. Therefore, we assume that this is remaining.
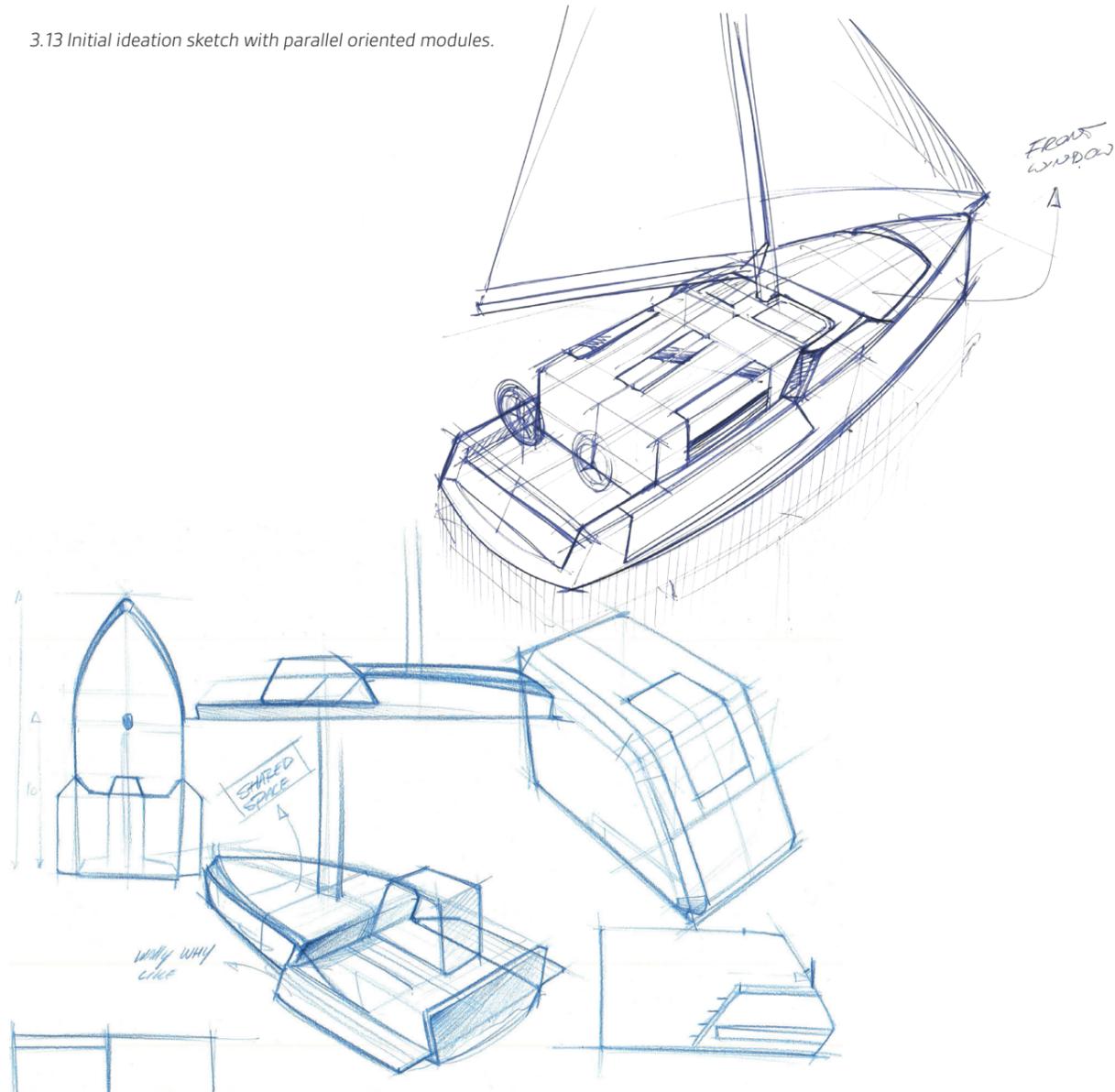
3.14 Explorative sketches for a final concept.

In the second idea which includes modules, the space problem is solved by having a common area rather than all facilities in a single module. Not only is this in line with the shared ownership and digital nomad part of the project, also it solves issues surrounding the tightly squeezed front of the boat. In the front part of the boat, an optimised interior is fitted in which shared common space is situated. Think for instance about a galley, working area and dining area.

As the personal modules become smaller, the possibility presents itself to place them parallel to each other, rather than infront of each other (figure 3.13). This layout uses the width of the ship to its maximum capability.

It solves most issues the V1 idea had. Mainly about the structural integrity and the space surplus. The folding side decks (figure 3.14 and 3.15) can be let down when anchored. These provide personal exterior space to the tribe members, in line with the flexible and open values named in the previous chapter.

A final decision for the ideation phase was to step away from removeable modules and make the interiors removeable. Now, there is a lot less that needs to be shipped whilst still providing the same level of functionality and personalisation.

Simultaneously with the embodiment of the final product, the service is shaped. The service provides for the system to prevail. For now, it can be seen as the touchpoints of the ships with the habited world. It is possible to travel from and to these touchpoints around the world. The primary idea of these being service and supply stations.

With the different facets of the idea explored and formulated, it is time to move on onto more detailed concepts.
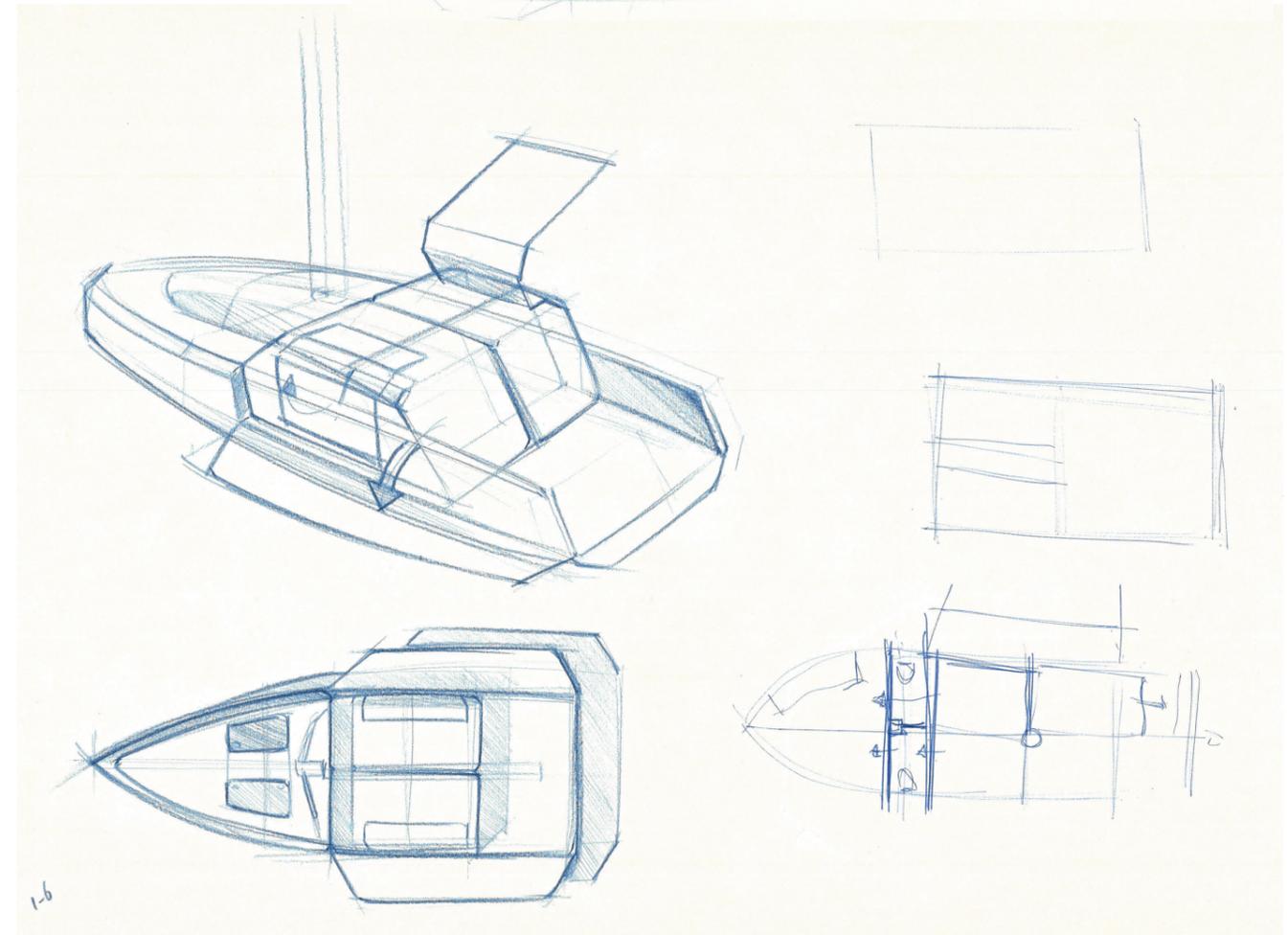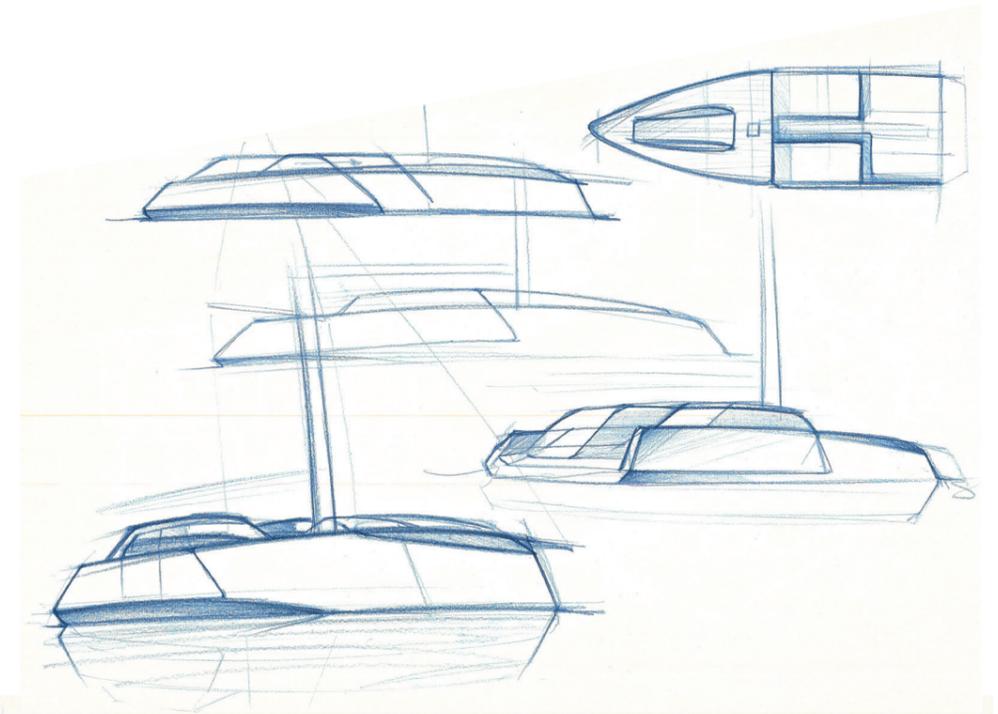
3.15 Explorative sketches for a final concept.

System scenario
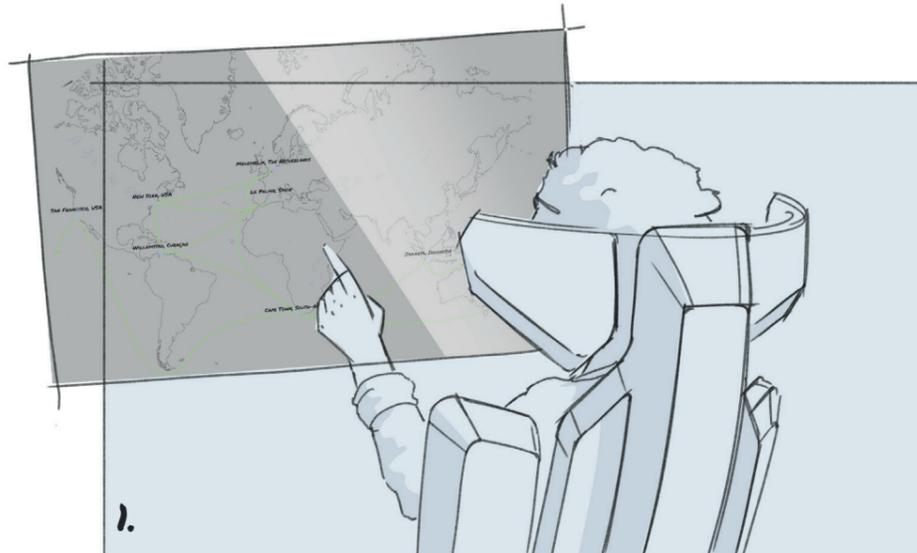
To create context around the envisioned idea from previous chapter, the following scenario is formulated. It communicates the steps surrounding the service and the carefree experience of the Contest Tribemember.

1.
As the tribe member needs a change of scenery, he decides to move to a new location. In the Contest interface, he can select a new destination from which to depart.

2.
In a fully automatic warehouse, the personal box which holds the interior is retrieved. All the Contest departure harbours need access to a warehouse.

3.
The box is loaded onto a container which is shipped to the next destination. The time it takes is dependent on the to be determined shipping method and the distance the module has to cover.
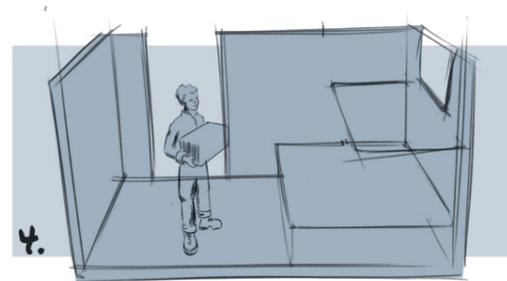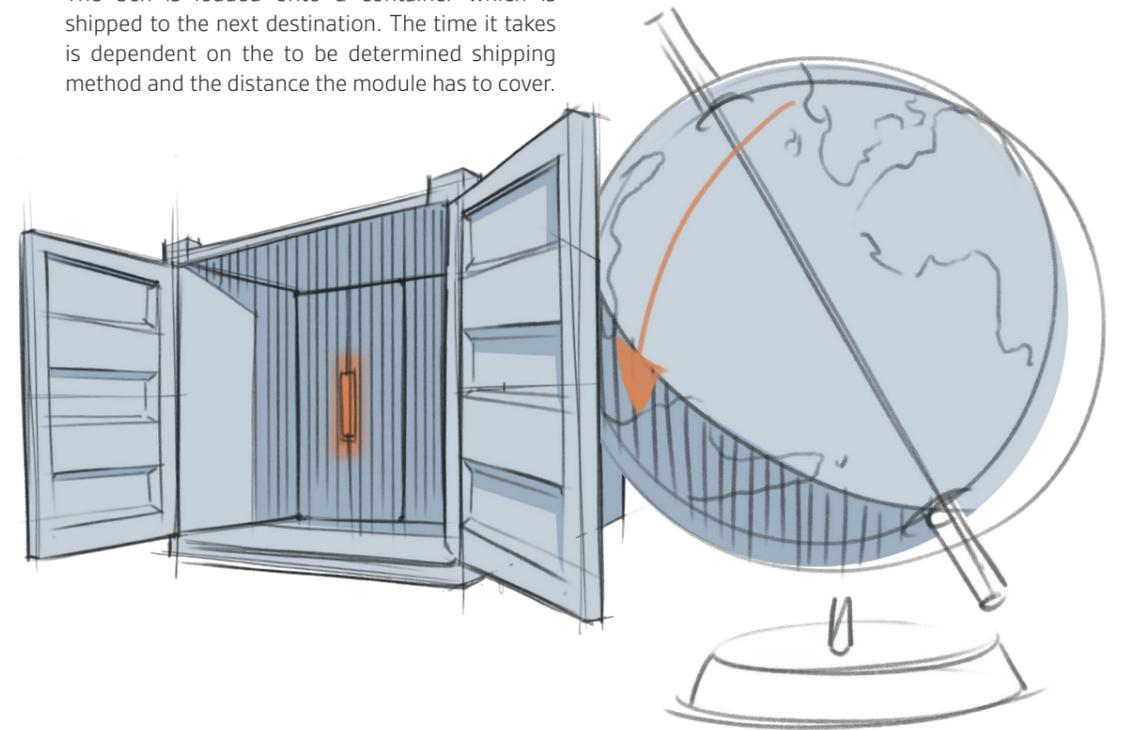
4.
On the service location, the local Contest crew fits the interior in the empty module and makes the yacht ready for departure.

5.
The Tribe member arrives and is only burdened with unpacking his own stuff and settling in.
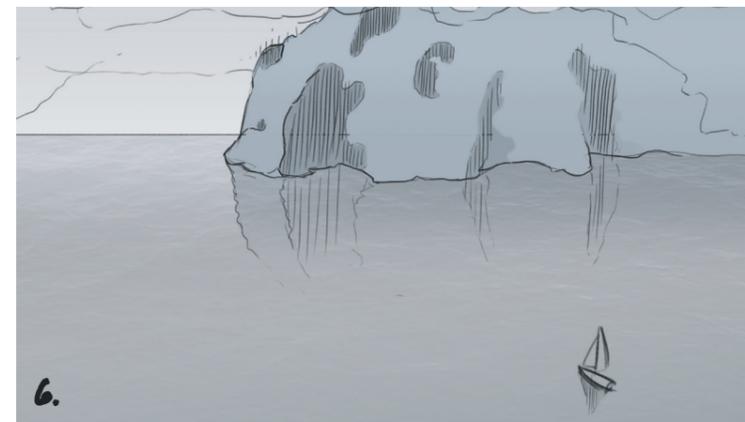
6.
Time to set sail! As the Contest crew made sure the batteries are charged, the clean water tank is filled and the sail is ready to be hoisted, the Tribe member has neither stress nor hassle to get out on the open waters.
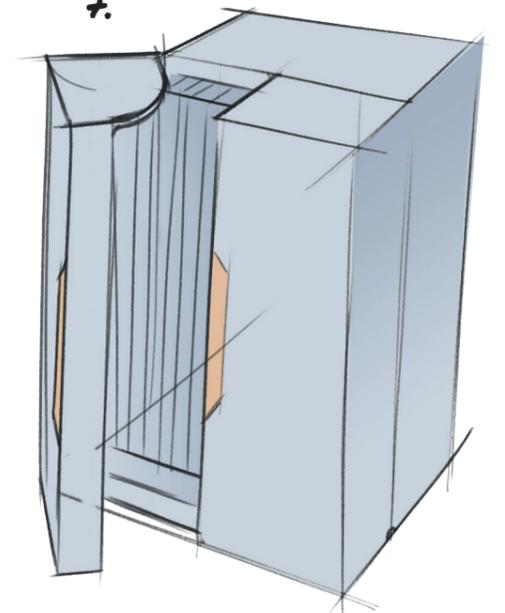
7.
At the end of the trip, the interior is removed from the module and repacked in the container. This container is kept in the nearest Contest warehouse.

Revisit analogy

Previous chapter is concluded with the description of the Tribe analogy. This chapter closes with a revision of the analogy. Because if the features named in earlier chapter are met, the idea fulfils the interaction with the product and peers.

- **The Tribe:** The proposed system makes use of a membership for the use of the yachts and the service that supports the system. Its users are the members of the Contest Tribe. This uniting factor is further build on the campground level.
- **The Campgrounds:** As with the ever-moving campgrounds of a tribe, the yachts used are also on different locations around the world. Their inherent nomad nature embodies that of a nomadic tribe. Shared facilities combined with shared responsibilities make it a breeding ground for the tribelike feeling.
- **The Tipi:** The smallest aspect in the system is the personal module. It is a near copy of the analogy, as it is a building block of the 'campground'. While most of the aspects are shared on the yacht, there is always a possibility to take a step back and relax in their private surroundings.

Now that the analogy and its facets are well integrated in the project, it is time to freeze the ideation phase and work on further concept development and detailing.

3.16 The personal tipi of the Tribe members.

Conclusion ideation

To round off the ideation phase, decisions are made about multiple aspects of the project. It results in a design requirement list for the following chapter.

Service
To provide a platform for Contest Sailors to explore the world and experience the promised flexibility, a full-scale service is necessary. As discussed with Arjen Conijn, such a service should cover most oceans, as an unserved area can feel distant or even impassable.

Shared Facilities
In the first iterations, the goal was to give people most of the facilities in their personal module. Bathroom, kitchen and lounge area are all embedded in a single module. This proves space inefficient and crucially removed from the analogy. As sharing is an important feature of the concept, the integration of personal facilities prevent the tribe from building during the journey.

Modules
Fully personalised interiors that fit the demand of a customer. The option to include most of the facilities in a single module is explored. However, it results in large personal containers which are hard to ship around the world. The following conclusion is drawn from this difficulty:

The yacht itself should be equipped with a common area in which facilities are shared. Among those are the galley, shower, toilet and lounge area.

- It is preferable if the interior is interchangeable rather than the entire module. Mainly because of multiple difficulties surrounding the logistics of the system. Also, because interchangeable modules become increasingly difficult because it should fit either location on the yacht.
- A fully customisable and interchangeable interior would allow the customer the same level of personalisation.
- Although economics are rarely mentioned in this report (Considering their relatively low relevance), shipping a full container per module is more expensive than being able to fit multiple boxes in a single standard unit.

With these conclusions, the next phase of the project is provided with guidance. By fulfilling these guidelines, the final concept is destined to hit the mark considering the analogy and its features. Thereby guaranteeing the future desirability of the project.

4. Conceptualisation

The loosely sketched concept from previous chapter is further explored and detailed in this chapter. Using sketching, 3D modelling and rendering as tools, the final concept is developed and visualised.

Requirements

During the process multiple requirements and limitations came up around the art of building yachts. As it is a visionary project, not all demands and requirements from the Lloyds Register are considered. This would hinder the free flow of mind.

Steering
Yachts have always had their rudder at the back end of the hull, as this is the best method to stear a boat. The helm is directly and mechanically linked to this rudder. Therefore, the sailor is in current designs always in the cockpit at the stern of the yacht. In the case of a sail by wire, short circuit could mean being rudderless on an ocean. Although other mobility branches more often choose for a drive-by-wire (electronic connection between the controls and the actual steering), in yachting this is not likely to be adapted. When short-circuit occurs during a sailing trip, the steering would forsake. On the middle of the ocean this would result in major problems. For this safety reasons, it is chosen to keep the mechanical connection.

Mast
The mast is a crucial feature of a sailing yacht. It holds the main drivetrain; the sails. Therefore, it also endures the forces the elements throw at it. The force on the mast can be considered equal to the weight of the total yacht (Vijselaar, personal communication, 22 February, 2022).

It is given that the mast should be connected to the bottom of the yacht, where it meets the keel. Also, around the mast needs to be strengthened

with trusses. These are seen in the interior. In current designs, often integrated as part of a wall separating different rooms. Within this vision, the importance of the mast remains. For this reason, this structural constraint is taken into account for the concept.

Air containers
Boats currently are obligated to have sealed air containers at both ends. In case of a leak in the middle of the ship, these boxes prevent the yacht from sinking to the bottom of the ocean. Considering sinking is and will remain a safety concern on the water in the future, these two airtight sealed boxes are integrated within the design.

Space efficiency
In yacht design, space is a constant constraint. The curved hull which is necessary for the performance of the boat makes interior design far from straightforward. During the design phase, the requirement came to make full use of the interior space. Although the result remains a vision for now, it loses its credibility when the space is poorly used. In a final design proposal, there is no room for empty spaces around the yacht.

Seven Seas Service

The Seven Seas Service is a conceptual service and the basis of the rest of the concept phase.

Contest has always promised the ability to sail anywhere. The Seven Seas Service is a world covering service for the Contest sailor. With seven designated Contest service harbours (excluding the wharf in Medemblik), the seven seas are covered. The two Arctic oceans have been replaced by the Caribbean Sea, and the Mediterranean Sea. As these waters are more appealing to most sailors. With a simple digital request, their personal module will be shipped, installed and stocked up on the asked for location.

On each of these locations around the world, multiple Florence CS's are kept for the Tribe Members to rent. Whenever one of these yachts is rented, the local Contest crew can fit personal interiors in the empty modules aboard. When the tribe members arrive for their trip or stay, the yacht is ready to sail away. The sailor is therefore completely carefree.

At the end of the use, the tribe members can get their personal interior removed at any of these locations. These can be seen as the touch points for Tribe Members and Contest as the provider of this service.

As the company owns the yachts themselves, it is their responsibility to service and maintain it. This relieves the consumer from the negative aspects of ownership. Contest is in full control over the quality of the Florence CS's at all times.

In the Seven Seas Service, the service model has been embraced. This means that the user has the ability to move around freely in the waters of the Seven Seas Service. This is desirable when one wants to look for better wind, weather conditions, different surroundings, or simply because one needs or wants to move on.

North Atlantic – New York, USA.

South Atlantic – Cape Town, South Africa.

Indian Ocean– Jakarta, Indonesia.

North Pacific – San Francisco, USA.

South Pacific – Sydney, Australia.

Caribbean Sea – Willemstad, Curacao.

Mediterranean Sea – Palma de Mallorca, Spain.

(North Sea – Medemblik, The Netherlands)


4.1 Seven Seas Service rolled out.

Package

Sailing can be daunting, especially on a large yacht. A 52ft yacht owner is by many seen as someone who is capable of sailing large vessels. However, for this same captain the step towards a 63ft yacht can be more challenging than his or her initial step to a 52ft (Vijselaar, Personal Communication, 31 May, 2022). For the Florence CS was therefore chosen to design for the smallest yacht Contest can comfortably produce. Hereby guaranteeing for a comfortable first experience with larger yachts.

The rather straight being of the yacht, makes fitting features easier. Furthermore, battery packs, tanks and shared storage could become interchangeable between boats. If the opportunity to further develop this idea to more modules becomes relevant, the fitting can be done the same. Simply increasing the amount of battery packs and tanks increases the capacity for occupants.

Larger models therefore do not need larger systems, simply more. Battery packs should be the size to support two modules and the common area. The same goes for the water tanks. A yacht should have at least two water tanks. One for clean water and one for 'black' water.

As for weight distribution, it is desirable to have most of the weight on top of the keel. Especially for the water tanks and batteries this is important. Water will weigh the same in the coming twenty years. However, batteries are likely to become much lighter.

15000 [MM]

4800 [MM]
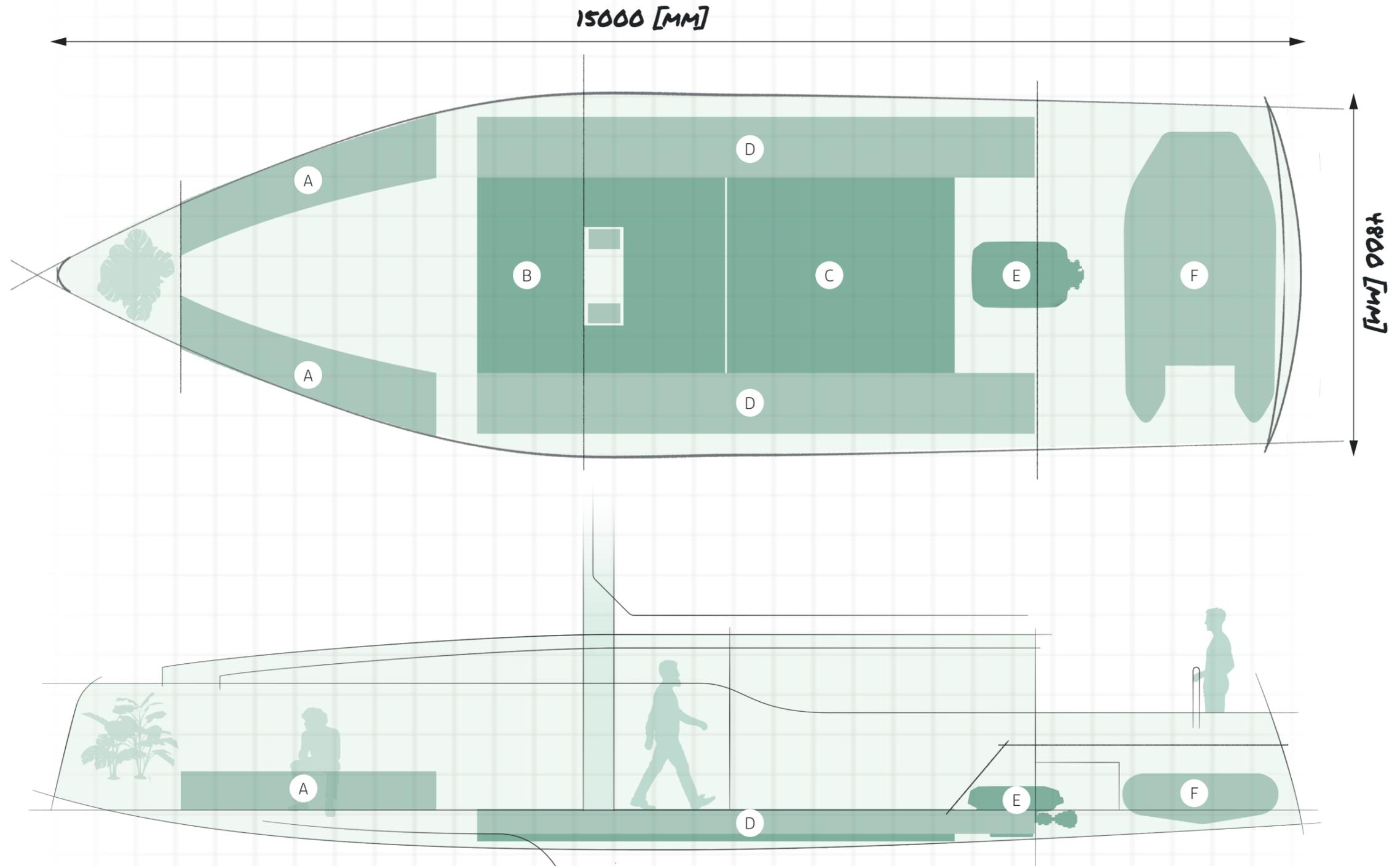
4.2 Package design of Florence CS.

A] Shared storage in the couch
B] Clean water tank
C] Black water tank
D] Battery packs
E] Torqeedo Saildrive
F] Dinghy garage

Layout

The yacht has been designed for optimal use of space. From designing and iterating, it was decided to equip the Florence CS with a common area, in which the dining, lounge and galley are shared. This is in line with the Shared Ownership value that is explored for this project. For the further embodiment of the ship, a double module set up was chosen. The decision results in a relatively small yacht.

The module is fully integrated into the ship. But as newly build, it is completely empty. What remains is a 4,2 [m] x 2 [m] x 2,3 [m] box which can be fully equipped at the preference of the owner.

Privacy
In the layout a point of interest is the balance between shared ownership and privacy. The sailors should feel the possibility to share time with the people they are travelling with, while still having the safety of a physical personal space.

A key choice is to divide the personal modules by a hallway which connects the rear cock pit with the shared facilities in the front of the Florence CS. To further provide the Tribe members with privacy, each module is directly connected with a personal head. Its location is between the common area and the personal module, to create more distance. If the other people aboard tend to make it a little earlier or later than yourself, you are not bothered with their noise.

Furthermore, the personal module is for both sailors the centre of their yachting experience. Both are connected to the common area in the front, the cockpit in the rear and the private terrace at the side. This interior flow empowers the sailors to decide how to spend their time.
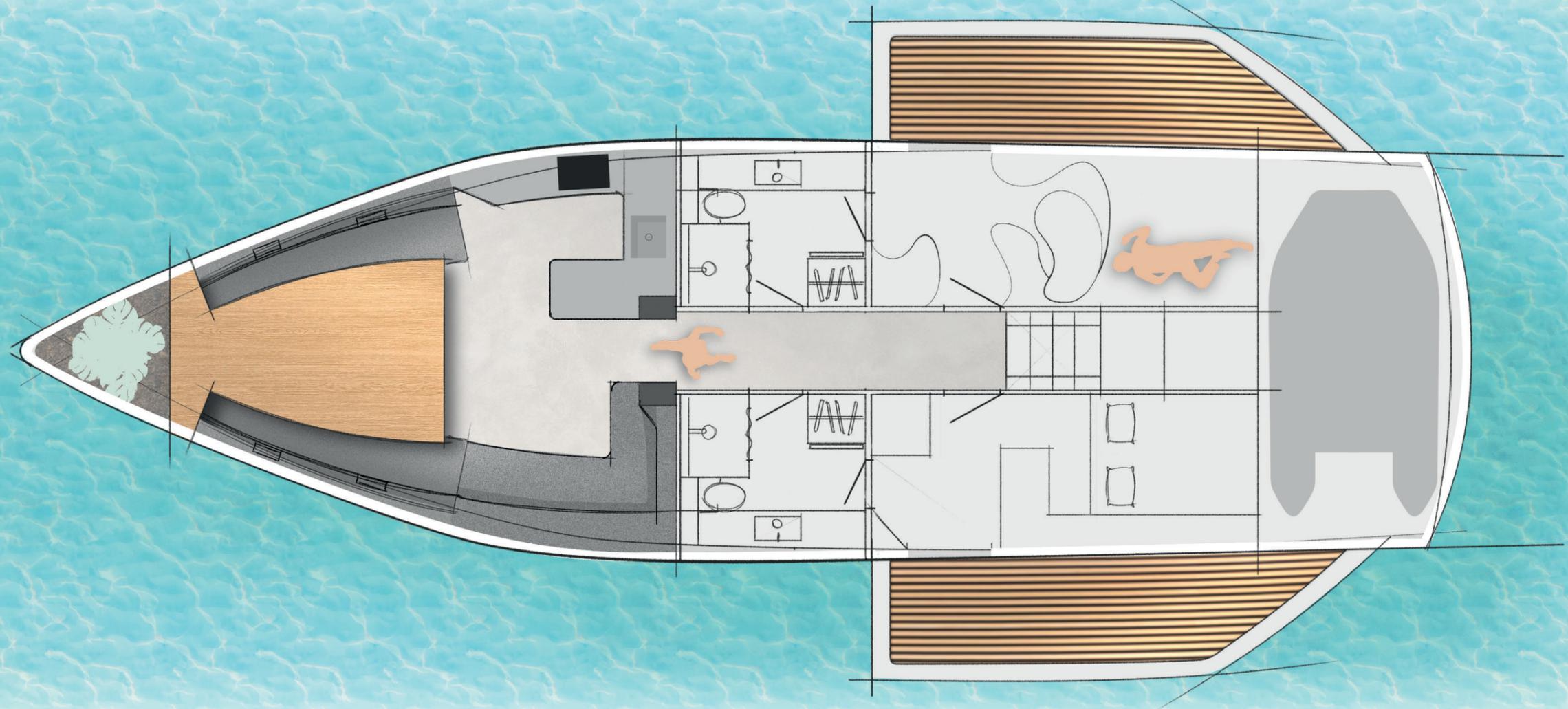
4.3 Layout design of Florence CS.

A] Shared workspace
B] Galley
C] Shared lounge
D] Personal heads
E] Personal wet locker
F] Personal module
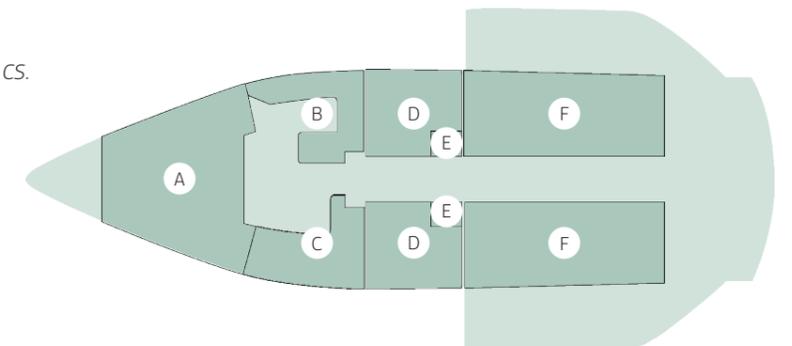
Interior design

The shared spaces are designed by the interior design department from Contest (currently this would be WB). It is in these spaces where the customer is bathed in the quality and detail of the brand. For returning customers this should look and feel familiar and comforting. The newest generation of Contest sailors can experience the brands promise in this space.

In the front of the yacht is an obligated airtight zone, for safety reasons. To allow for lighter and the soothing effect of plants (Dijkstra et al, 2008), this space is filled with plants.

The interior of the modules is completely open for the desires of the client. Naturally, Contest can provide multiple options for the design. For the extend of this project, it was chosen to leave all options on the table. Future options are hereby not lost, neither specified. Not clouding any future brainstorming.
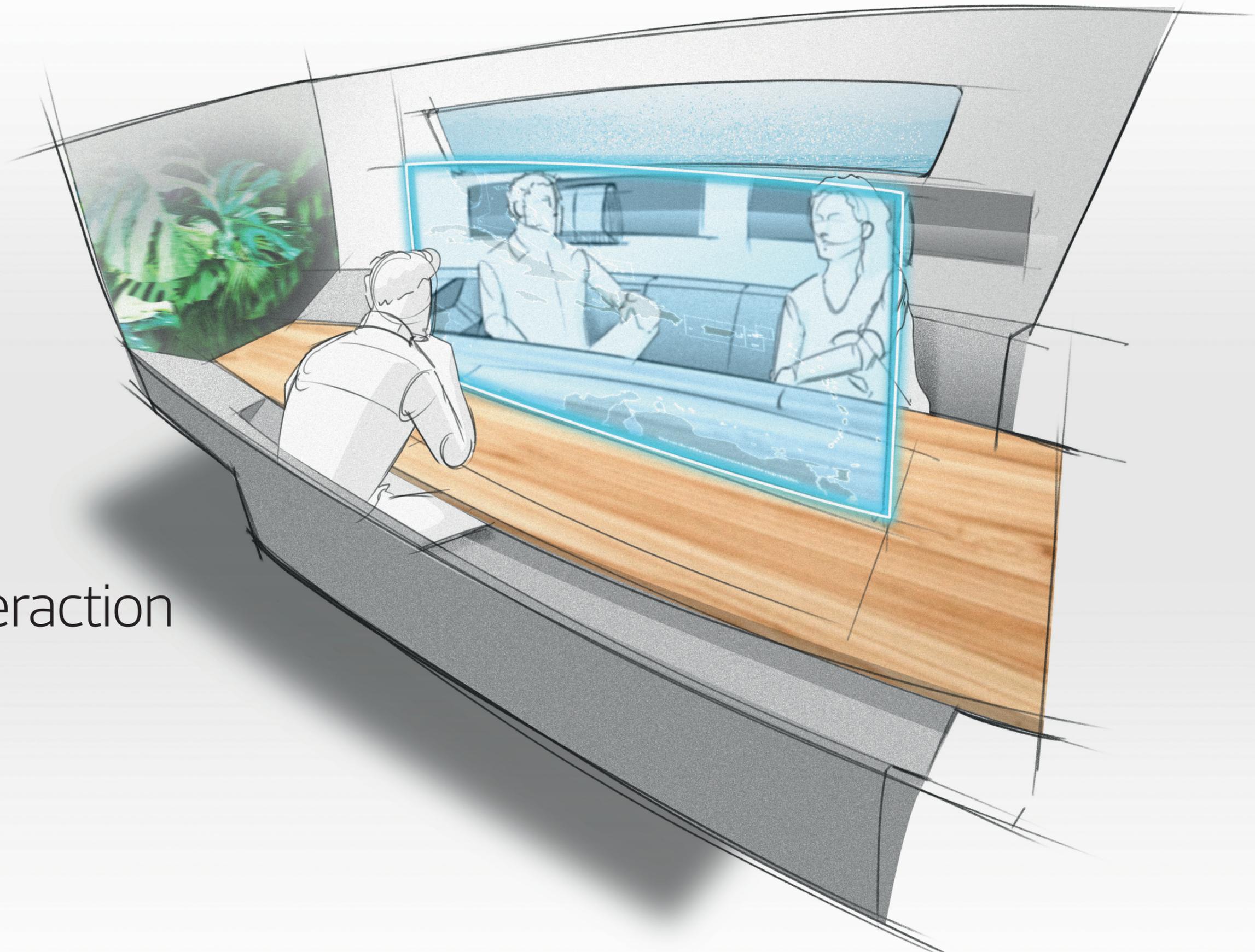
When the yacht is in a passive condition (either anchored or docked), it becomes possible to open the interior spaces and let them blend with the outdoor. At the side of the modules are foldable side decks. These offer personal exterior space.

Relaxing interaction

The table offers different set ups and options for the tribe members. Seats can be altered to create comfortable working spots or facilitate cosy and meaningful interactions with peers.

At the end of the day, when all work is done, the seats straighten back up. In this comfortable position, interaction with the people among the table becomes convenient. An interactive holopad in the middle of the table allows you to watch movies together, play games or plan the upcoming journey.

When the digital environment has reached its limit for the user, it can be shut down. As it is out of sight, the tribe member can enjoy digital detox and fully invest in conversation with their peers. In this set up it can also be used as a dining table or to play cards, etc.

4.4 Tribe members aboard the Florence CS planning their next destination in the shared space.
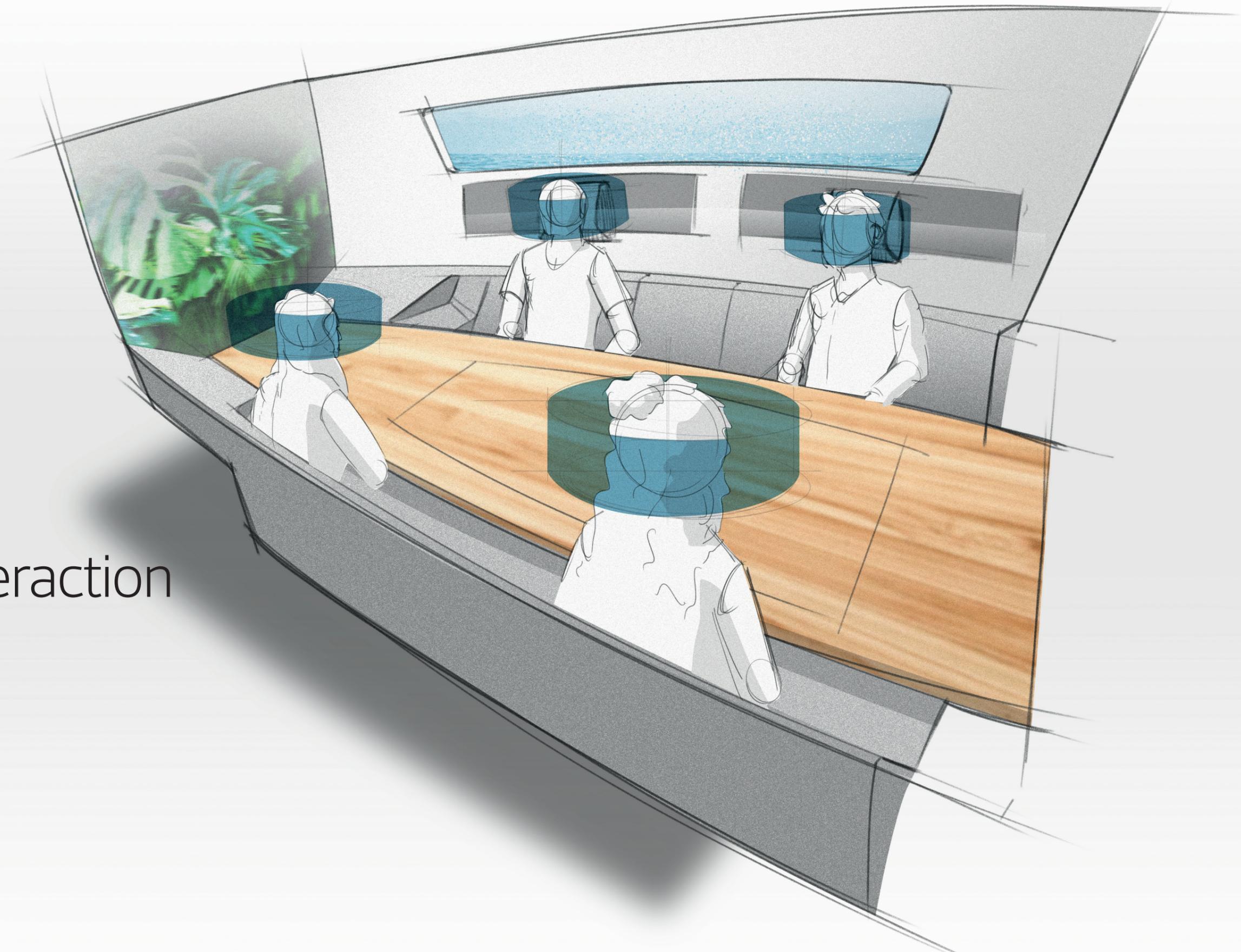
Working interaction

In working conditions, the seat is adjusted into an ergonomic position which does not strain the muscles. Considering that the future will be based mostly around cloud computing, tribe members are not designated to a single workplace. Also, when entering another yacht, people do not need to bring their own computer or hard disks over.

An overhead heads up display takes the user into a virtual world together with colleagues from all over the world. With build in speakers and noise cancelling devices, the seat becomes a truly distraction free environment.

4.5 Tribe members submerged in their VR work environment aboard the Florence CS.

Module study
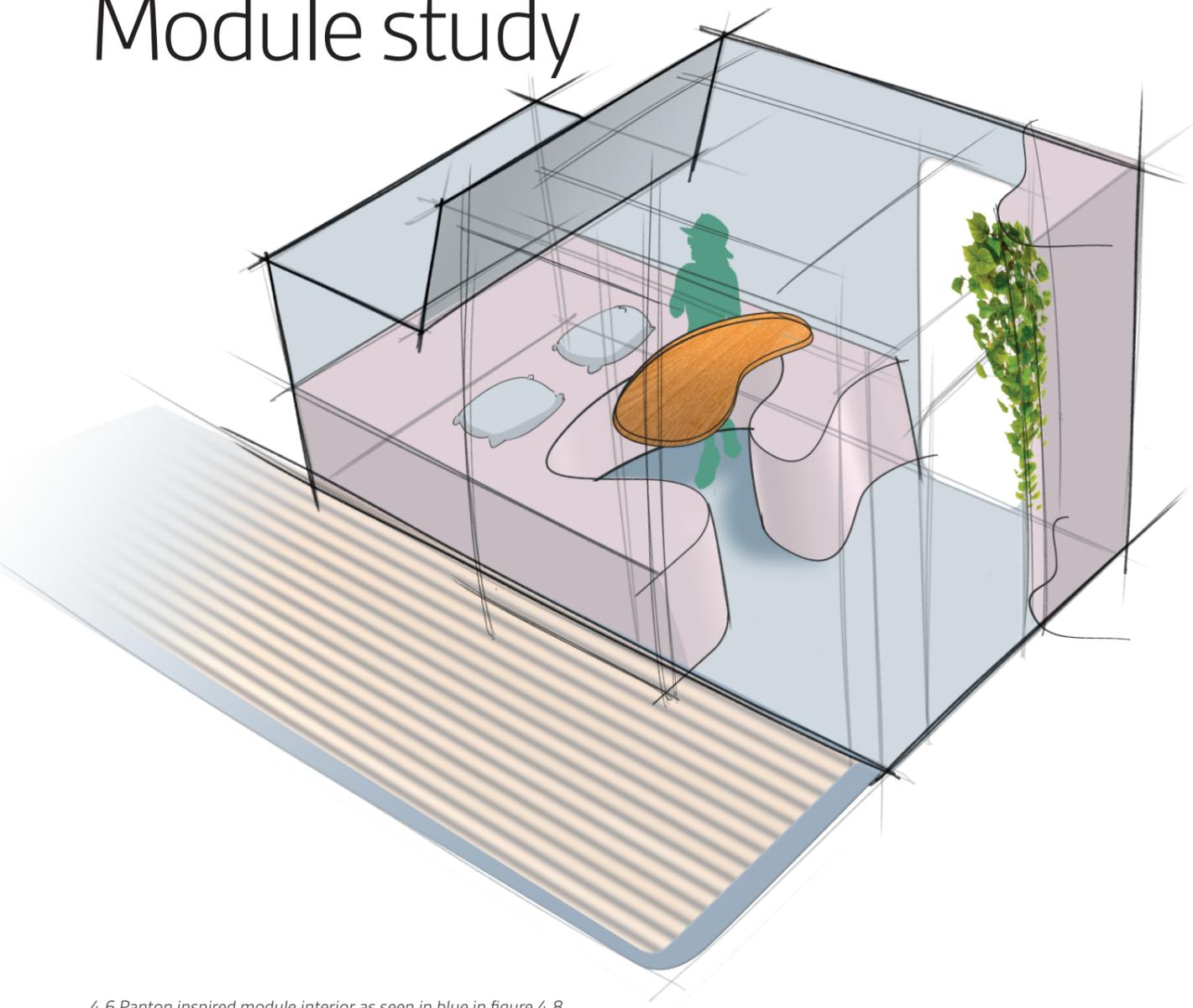
The personal cabin, referred to as module, can be dressed completely in the wishes of the tribe members. Together with Contest, the customer can design a fully personalised interior solution that suits their taste and desires, which Contest can realise.

Although most of the space is shared and the module is small in comparison, it remains important to facilitate this space. People have an inherent need for a personal space (Barrett, 2021). Contest can provide for this need with a fully customisable and functional removeable interior.

As a matter of case study, two vastly different interior styles are visualised in the images above. The goal of this study is to showcase the near endless possibilities for customisation.

Inspired by the Visiona by Verner Panton, the first of two concepts has a relaxed and go with the flow atmosphere. The owners will probably use this personal space as a place to relax, meditate and contemplate.

The second personal module could have been designed by someone who has a more serious and business-like lifestyle. He or she prefers to do most of the work in solitude. Their module allows them
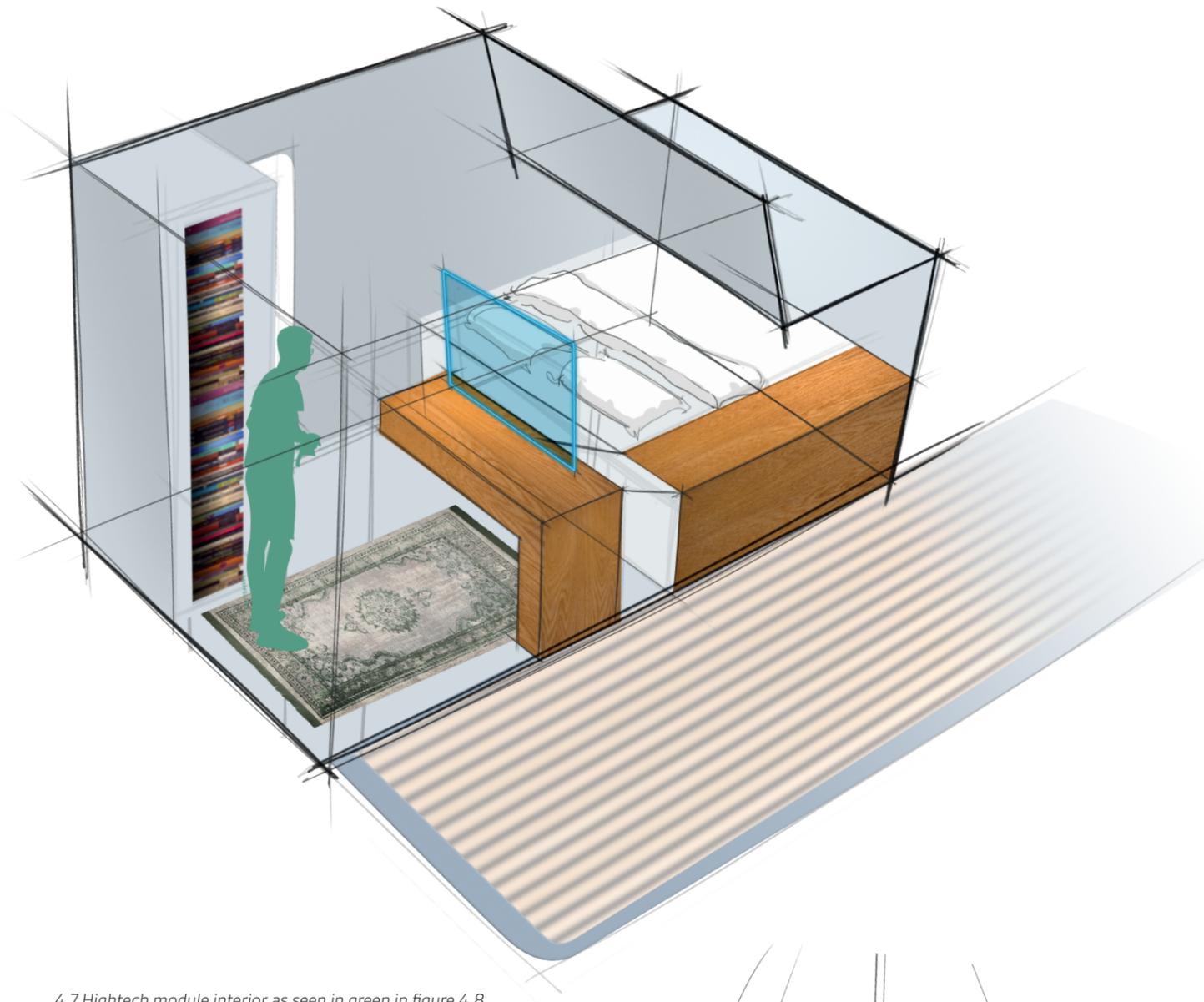
a place to work during the day and sleep during the night.

The beauty of the concept is underlined with the combination of these rather opposite interiors. Although these sailors may have different lifestyles and ideals, that does not mean they are opposites. It offers the ability to share with those close to you, or those unknown to you. After all, all these people have a passion for sailing in common.
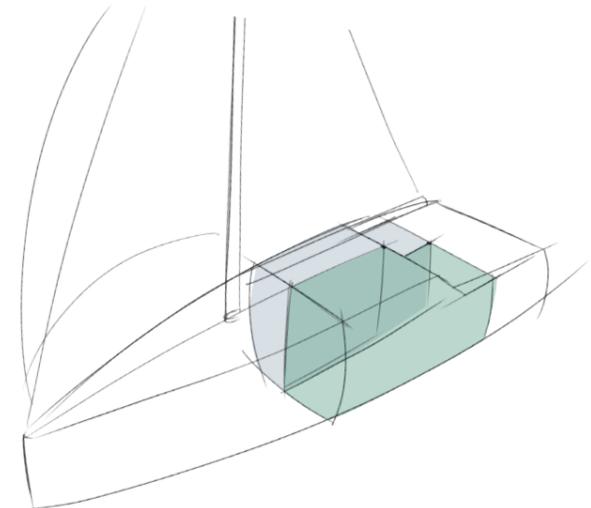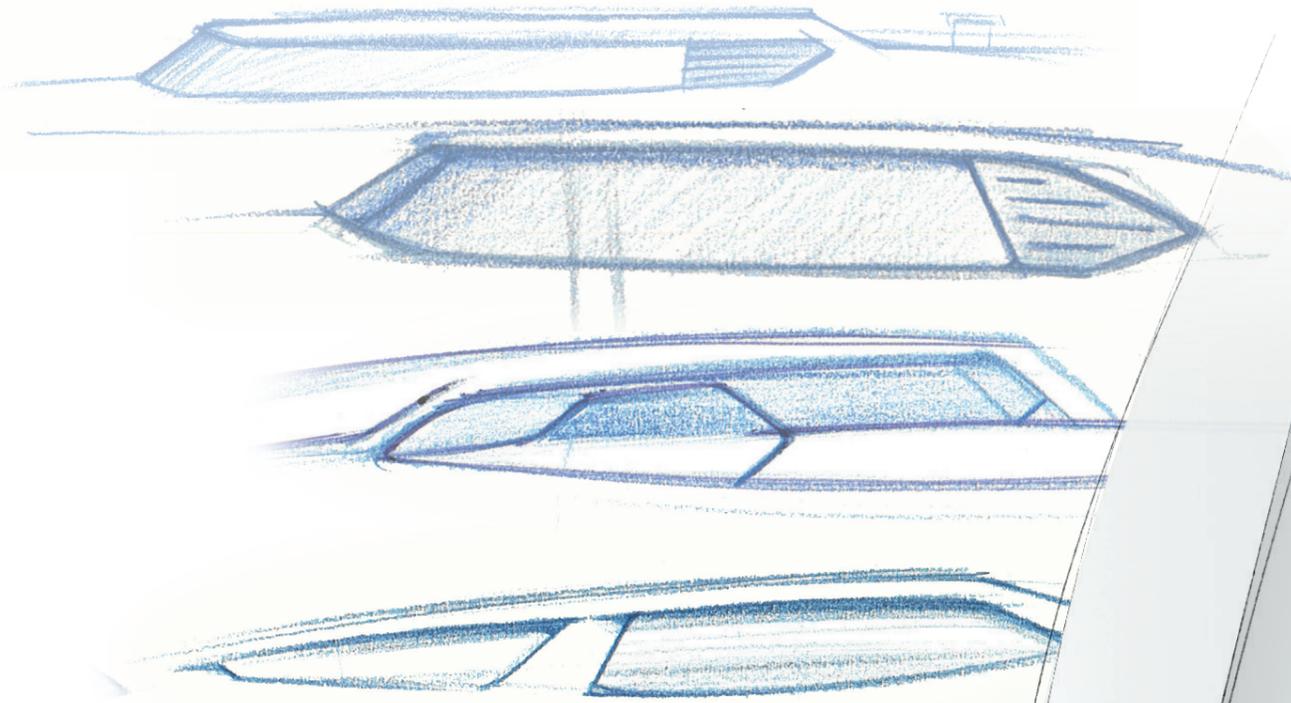
Exterior styling

The exterior styling is the first impression the Florence CS will make. Therefore, it is paramount that this communicates the proper values of the company. Characteristic lines from current Contest designs are transferred to the new design (as seen in figure 4.9). However for further development this has to be refined

Although it is the first touch point with potential clients, it is not its sole purpose, neither the most important. As the exterior is designed around the interior of the yacht, its main purpose is to provide a hull for a pleasant space. The design is inside out.

Large windows result in a light and spacious interior. With the ability to open the top windows, it also allows the sailor to work indoors, while sitting outdoors. This open characteristic which is formulated in the original design vision is in the concept interpreted as the fading of indoors and outdoors. With near round going terraces, some private and some shared, the sailors have the freedom to sit and enjoy the outdoors. The hammock covering the front top window is large enough for two people to lay and relax when the yacht is anchored or in the harbour.

At this point, the outer edges of the yacht become parallel. Hereby, the room onboard is optimised for the modules. The hull lines continue onto the module, resulting in a single design language over the sideview of the yacht.

4.10 Exterior Design whilst sailing.

Open exterior

To be able to fully unwind on your holiday, or at the end of a workday, the lounge as an intrument of relaxation is an important aspect of the yacht. The breath of the wind and the view of the horizon should sooth the tribe member. Hereby offering the calm and peace of mind the nomad of the tribe is looking for.

The hammock above the shared facilities has the ability to create a moment of introspection. While on the personal terrace, the user has the space and privacy to exercise or hobby. The seating arrangement accommodates enough space for the module owners to sit and read or relax.

4.11 Florence CS open set up whilst anchoring.

Use scenario

The workday starts for the Tribe members. The HUD creates a distraction free environment for optimal working conditions.
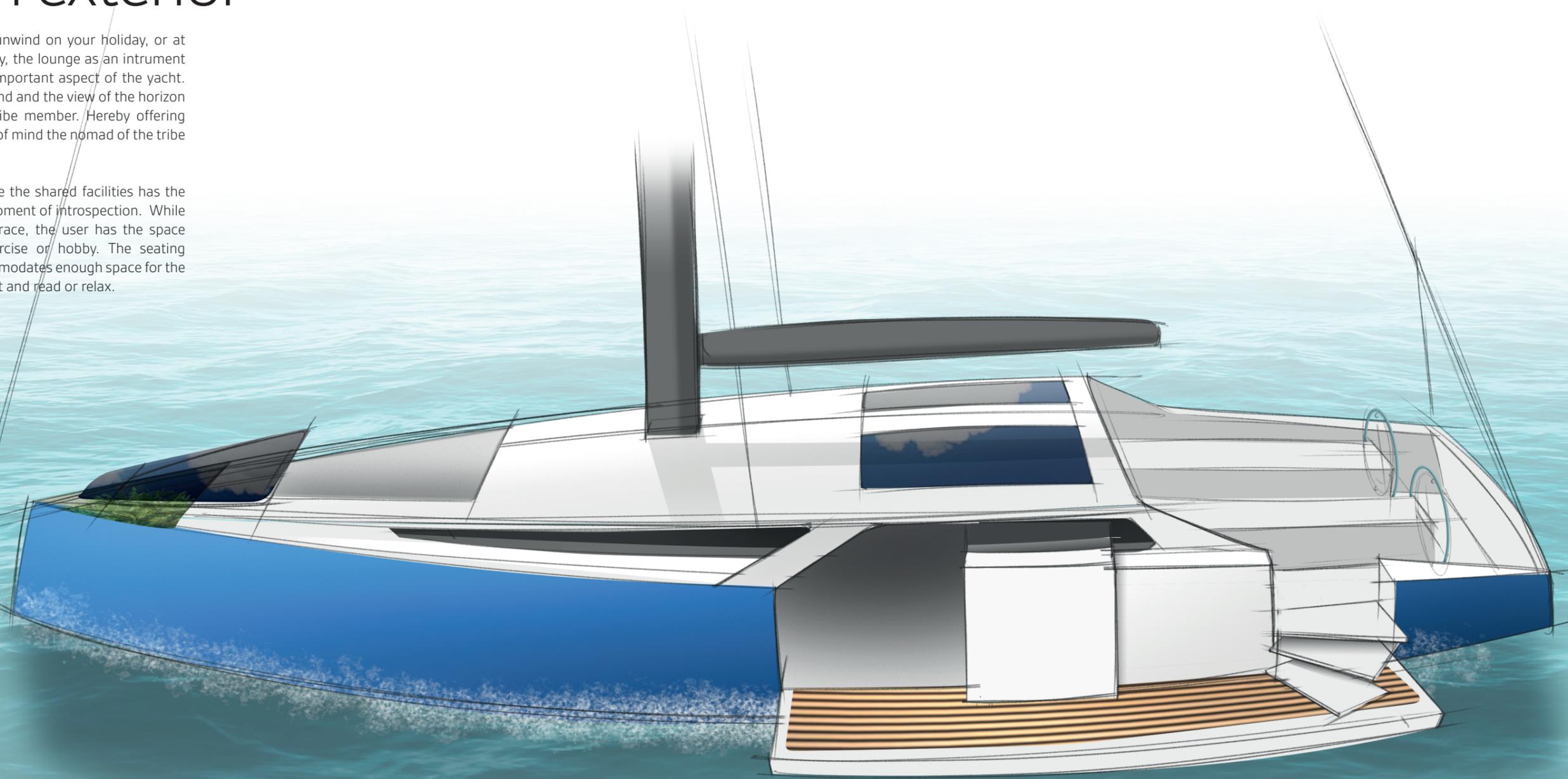
Early in the morning, the Tribe member wakes up to make the best of his or her day.

Breakfast can be enjoyed together with the other members.

In the evening the workspace can be used to share thoughts, talk, play cards, or plan the further trip with each other.
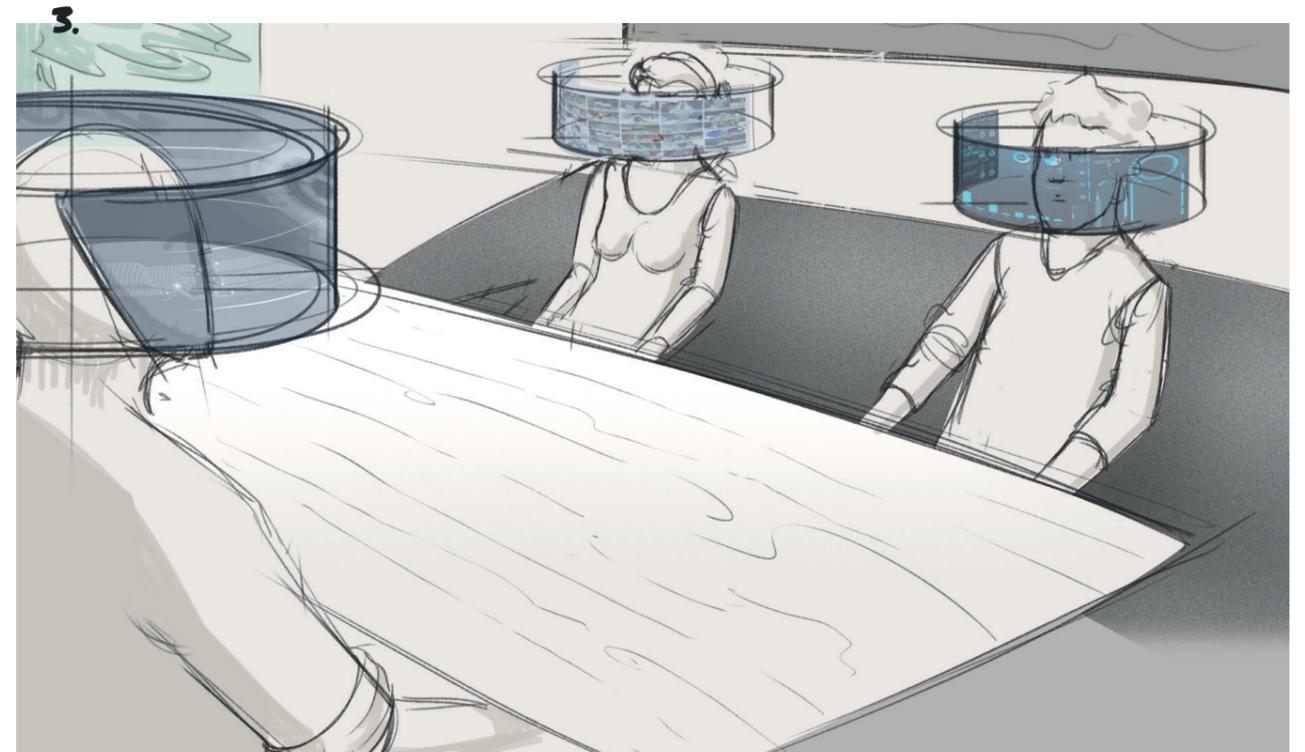
Or if the conditions are perfect, the tiny tribe can go for a leisurely sail or set course to a following destination.
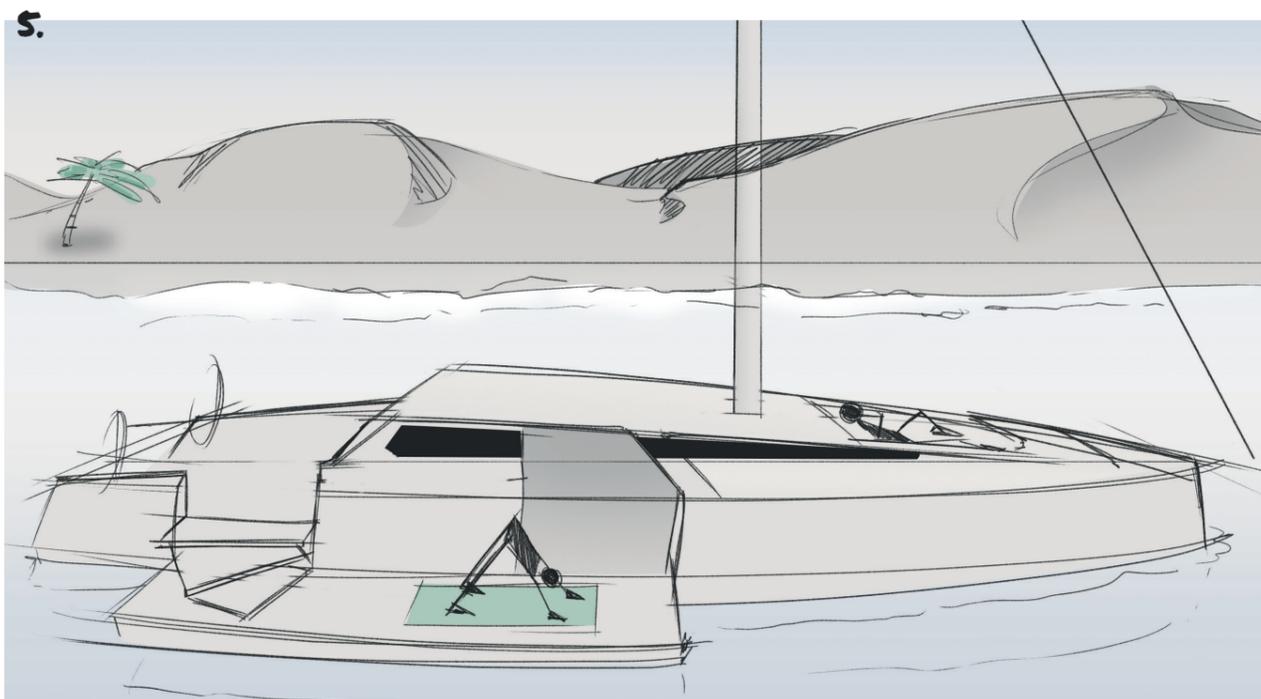
During free time, the Florence CS provides the perfect place for the tribe members to relax and be mindful.
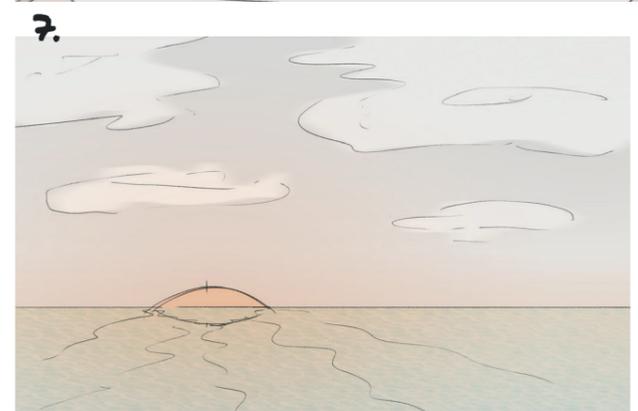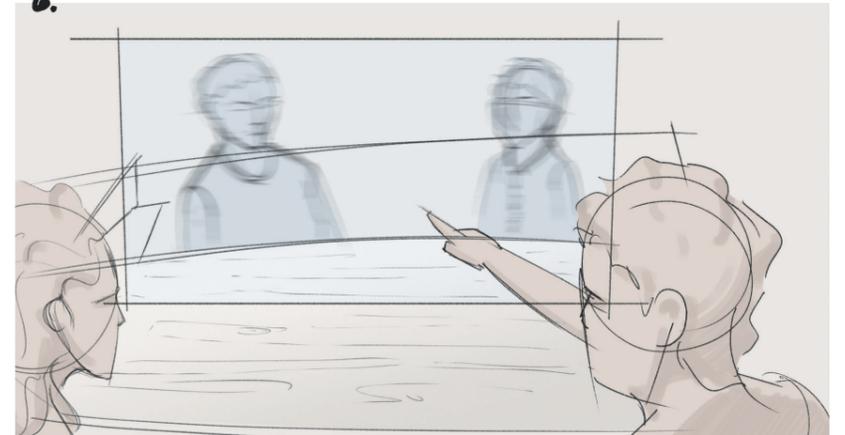
At the end of a relaxing / productive / enjoyable day, the Tribe members can have a good night rest in their personal cabin.

5. Validation & evaluation

With the final concept proposition designed, explained and formulated, it is time to validate if the concept is deemed likely in the future. Improvements and additional amendments can be found in the discussion.

Validation

Validation for projects like these are difficult as some aspects are too far ahead in the future to substantiate them. However, together with the development partners of Contest, we looked to the credibility and the use of logic throughout the project.

Representatives from Contest and Judel/Vrolijk are asked about the likelihood of this idea being implemented in the foreseen timeframe of this project.

Contest and Judel/Vrolijk are both curious if this is going to be the future that lays ahead of us. The idea itself, the combination of shared ownership and a full world service, is considered as an interesting idea. Although there are many questions at this point, they are not seen as deal breakers within the scope of this project.

The fact that a discussion can be held about the vision and whether future customers want this, means that there is a possibility to discuss restructuring and redefining what yachting is going to be in 2040, which is the exact reason this master thesis is done.

'The question I get from this, can we get away with providing the future customer with a single boat which they can rent. Whilst on the other hand we deliver the sailor with a fully customisable module?'

Arjen Conijn, CEO Contest

Conclusions

At the start of the project, the question was asked what the future of yachting would look like and what the Digital Nomad could want and need and how Contest can design a yacht for these people. With the module concept of the Florence CS and the overarching Seven Seas Service, it becomes possible for the sailor to explore the world within the comfort of their personal belongings.

Design vision

In the design vision, cited above, two values are named; Open and Flexible. During the design process, these values play a decisive role. Every aspect of the yacht should service these thoughts.

The value of 'Open' is used as a means to provide as much exterior space as possible on a ship the size of this concept. As sailing is seen as being part of the elements, this feeling remains in the concept. Also, on the level of sharing personal stories this is seen as important. Contest Tribe members share their space on the yacht. The forced interactions that result, should build a bond. In the interior design, it is paramount to allow for a digital free set-up in which the sailors are able to interruptedly interact with each other.

For flexibility, the seven seas service on which the module concept is build, delivers an all around the world system for Tribe members to hop on board. The freedom provided around the location allows for sailors to explore the world. Not only does it deliver flexibility in the sense of location, also with whom to share the experience with. When friends, family and colleagues are all part of the system, you can invite them over at any time to come and join you on your adventures.

The analogy

As the concept fulfils the values of the Tribe analogy, it meets in the provisionally demands of the future generation Digital Nomads, Workationers or simply travellers. The system builds a feeling of group identity. Hereby forcing sailors of the Florence CSto oblige in their role in this future Contest Tribe.

Customisability

From the brand analysis, the conclusion is drawn that Contest should focus on providing a custom look and feel, whilst remaining in control over the building process. The concept succeeds in this demand. The yachts that are part of this service, are all designed and build to be the same. Customers of the service are able to decide fully what their personal module will look like. Contest delivers a designated space for the sailor.

Brand DNA

All current Contests are known as 'deck saloon' yachts. This results in higher ceiling in the saloon for more headroom. It also results in the sloped window at the front of the cabin, by Contest referred to as the sunglasses. In the proposed final design, the deck is a flat surface. Therefore, a characteristic Contest line is lost due to the package. Simply adding this line would not appeal in the bigger picture. A more subtle and coherent solution needs to be found.

Overall

The Florence CS could bring merit to the future of working, living and yachting. By providing customers with the choice to board their personal mobility solution all around the world, Contest can set themselves up to disrupt the market in 2040. The system offers flexibility on multiple levels.

With the Seven Seas Service model, Contest can stay close to their core value and their mission statement. Building quality yachts that allow users to explore the world and make their dreams come true. Whilst also reinventing themselves for a future.

Recommendations

During the design and development process, certain issues, opportunities and further questions arose. As the time of a graduation project is limited, not all of these could be further researched or resolved. For further development of the Florence CS, the points discussed below are worth to further investigate.

Expanding the concept
Contest is no stranger to building larger yachts than the currently proposed 52ft yacht. With an additional ~ 5 meters in length, it becomes a possibility to add two more modules.

With additional modules, the yacht needs an extra deck in the middle which connects the rear modules with the common area in the front of the ship. Also, the personal heads should be added to the rear of the yacht as well.

In later models, it will be possible to fit more modules on the yacht. By which it increases in size. Due to the simplicity of the shape of the hull, adding additional batteries and tanks is as simple as fitting extra modules.

As for personalisation, the discussion has been between full modules and interchangeable panels. One of which is easier to realise, whilst the other is more appealing considering the ability of full customisability. The choice for this project was to allow the client ultimate freedom in their interiors, as it is closest to the vision statement. In further development, this decision is up to Contest.

Galley & Heads
Due to the limited time, developing the galley was not part of the scope. Now it is designed as the current galley in the 55 CS. In twenty years time it is unlikely that this will remain the same. Innovation and higher demand for comfort might change the shape of these in more automated and comfortable spaces. The same goes for the heads. For this concept, a conventional layout was chosen with all the features that are up to current standards. The relevance for the current concept is too low, as the pith of the matter was interaction among tribe members.

Remain Researching
The Digital Nomad community is a recent development in society. Countries like Hungary are the first to offer these people working visas for a limited period (Edwards, 2021). Other countries seem to be following soon. These rapid developments might change the background of this thesis as well. It is not to say that for each of these developments the relevance of this thesis is undermined. However for some of these, the name of the game can change swiftly. Therefore it remains important to track developments around the Digital Nomad culture.

Relevance

To conclude this Master thesis, it is necessary to take a look at the future of this project. What is it that Contest should do with this stack of paper? First of all, I would want to ask them to be open minded about developments like these. Although many of the aspects named in this thesis may sound distant or unrealistic for now, they might be closer than they appear (figure 5.1). It would not be the first-time a branch is revolutionised from the foundations and caught well established names off guard.

Secondly, this whole thesis is a stab in the dark. Only time will tell what the future holds. This project is not a roadmap, neither is it an explicit goal. There are questions that can and should be derived from this project that can help to stay on top of future developments. Perhaps even initiate innovations.

Further steps for Contest would include:
• Redo this project with another graduation student or intern. It would be interesting to see how other people would shape the future and how they would suggest Contest should take a next step.
• Develop it in a case study which can be shared with experts, current Contest Sailors and the general public. This could lead to further ideas and give a feeling of the feasibility for the future.
• Organise a creative day in which employees, customers and the board can brainstorm openly about the future of yachting and how they expect Contest to fit in this image. There is a lot of expertise and knowledge in the company that might cross-fertilize resulting in promising ideas.

In the moment itself it does not always feel relevant to do. But interesting discussion can result from this in the future, and as soon as movement starts, more movement will follow.

Reflection

I look back with a satisfied feeling. During the past six months, I have been working hard and efficiently. As a matter of fact, I think I have never worked as efficiently as I have been doing. I used to work a lot harder without achieving what I wanted, while getting myself frustrated. For this project, that felt different. The end result is something I stand behind.

Previous reflection
In the previous reflection, the main story was about feeling the liberty to share ideas and how I have been always anxious to do so. Throughout this project, I have shared any idea that came up (smart or stupid) with my coaches and experts. It felt great and helped the project to be developed. As each idea seemed to start a co-creation session, most of the ideas that can be seen in this project are not mine

My coaches were slightly concerned from my previous reflection. They said I did not credit myself enough for the work that I did and that everything was going rather smoothly. I have a habit of focussing on negative aspects. From the previous reflection I therefore tried and have a more optimistic look about the progress (and sometimes myself).

The project
This was the first time designing a product this size, especially in combination with the complexity of these yachts. At times, I underestimated how difficult this is and I think I do not give myself enough credit for how far I have come. I learned a lot, and there is still so much to learn about these soulful products.

Some decisions I feel I needed to make sooner in the process. I have been changing some parts too late in the process. At some point during a coach meeting, Joost (coach) told me to stop with changing aspects of the final design. This helped me to recognize that the planning became too tight to keep moving it about. It ushered in the sprint I took towards the green light meeting.

Because of the complexity and size of the project, not everything I wanted to achieve or investigate was possible. Therefore, not everything is concluded as much as I formulated in the

beginning. Some decisions need time to be made. However, to get this project developed further many of these could have been taken sooner.

Stress
For me, stress is always a major handicap. In this graduation process I therefore put more time and effort into finding peace rather than feeling rushed to get this project.

It was also the reason why my final sprint was not as intense as most other graduation students might have. While in the past I would have tried to work myself to death to try to meet the standards I set myself in the beginning, in this process I tried to round off the project as coherent and tidy as possible.

Conclusion
The feeling of stress can never be fully gone. However, I experienced much less then before in major projects. This probably has also to do with my learning goal from previous reflection: be more positive. For this reason alone, I am proud of what I achieved.

Although I am still not easily impressed with myself and I still would have wished some visuals would have looked better, this project helped me to gain confidence in my abilities. I am proud of the final result.

"That's why race horses have blinders on. And that's what people should have. When you're running after something, you should not look left or right."

Jimmy Iovine, 2014

References

American Psychology Association. (2020, October). Stress in AmericaTM 2020. https://www.apa.org/news/press/releases/stress/2020/report-october

Amos, J. (2022, February 9). Major breakthrough on nuclear fusion energy. BBC News. Retrieved 22 March 2022, from https://www.bbc.com/news/science-environment-60312633

An, Y., Yu, J., & Zhang, J. (2021). Autonomous sailboat design: A review from the performance perspective. Ocean Engineering, 238, 109753. https://doi.org/10.1016/j.oceaneng.2021.109753

Barratt, E. L. (2021, September 21). The Pandemic Has Left Us Wanting More Personal Space — Even In Virtual Reality. Research Digest. Retrieved 4 March 2022, from https://digest.bps.org.uk/2021/09/22/the-pandemic-has-left-us-wanting-more-personal-space-even-in-virtual-reality/

Beach, G. (2015, June 18). Paper-thin printed solar cells could provide power for 1.3 billion people. Inhabitat - Green Design, Innovation, Architecture, Green Building | Green Design & Innovation for a Better World. Retrieved 25 March 2022, from https://inhabitat.com/paper-thin-printed-solar-cells-could-provide-power-for-1-3-billion/

Bearne, B. S. (2022, March 21). Not smart but clever? The return of 'dumbphones'. BBC News. Retrieved 21 March 2022, from https://www.bbc.com/news/business-60763168

Britton, A. (2017, April 27). Physical book sales rebound to hit five-year high as ebook popularity dwindles. The Independent. Retrieved 22 March 2022, from https://www.independent.co.uk/arts-entertainment/books/physical-books-sales-rise-ebooks-slide-a7705856.html

Buera, F. J., & Kaboski, J. P. (2012). The Rise of the Service Economy. American Economic Review, 102(6), 2540−2569. https://doi.org/10.1257/aer.102.6.2540

CGP Grey. (2020, April 30). Lockdown Productivity: Spaceship You [Video]. YouTube. https://www.youtube.com/watch?v=snAhsXyO3Ck&ab_channel=CGPGrey

Chapman, A., Itaoka, K., Hirose, K., Davidson, F. T., Nagasawa, K., Lloyd, A. C., Webber, M. E., Kurban, Z., Managi, S., Tamaki, T., Lewis, M. C., Hebner, R. E., & Fujii, Y. (2019). A review of four case studies assessing the potential for hydrogen penetration of the future energy system. International Journal of Hydrogen Energy, 44(13), 6371−6382. https://doi.org/10.1016/j.ijhydene.2019.01.168

Chattha, S. (2021, April 19). 'The continents are drying out:' New Research Shows Troubling Water Trends. Water Canada. Retrieved 11 March 2022, from https://www.watercanada.net/the-continents-are-drying-out-new-research-shows-troubling-water-trends/

Choudhury, P. (2021, July 7). Our Work-from-Anywhere Future. Harvard Business Review. Retrieved 1 March 2022, from https://hbr.org/2020/11/our-work-from-anywhere-future

Choudhury, P. R., Foroughi, C., & Larson, B. (2020). Work from anywhere : The productivity effects of geographic flexibility. Strategic Management Journal, 42(4), 655−683. https://doi.org/10.1002/smj.3251

Climate Change: Global Sea Level | NOAA Climate.gov. (2020, August 14). Climate.Gov. Retrieved 1 March 2022, from https://www.climate.gov/news-features/understanding-climate/climate-change-global-sea-level

Contest. (2021). A wandering mind. Context, 2021, 34−39.Contest Yachts. (2022, January 18). Online Live Event 49CS and 50CS [Video]. YouTube. https://www.youtube.com/watch?v=7pXQS-sEUH8

Coombes, B. (2009). Generation Y : are they really digital natives or more like digital refugees? Synergy, 7(1), 31−40.

Daley, J. (2019, March 1). Toledo, Ohio, Just Granted Lake Erie the Same Legal Rights as People. Smithsonian Magazine. Retrieved 9 March 2022, from https://www.smithsonianmag.com/smart-news/toledo-ohio-just-granted-lake-erie-same-legal-rights-people-180971603/
de Saint-Exupéry, A. J. B. M. R., & de Beaufort-van Hamel, L. (2019). De Kleine Prins / druk 28. Donker.

Dean, B. (2021, October 10). Social Network Usage & Growth Statistics: How Many People Use Social Media in 2022? Backlinko. Retrieved 3 February 2022, from https://backlinko.com/social-media-users

Dijkstra, K., Pieterse, M., & Pruyn, A. (2008). Stress-reducing effects of indoor plants in the built healthcare environment: The mediating role of perceived attractiveness. Preventive Medicine, 47(3), 279−283. https://doi.org/10.1016/j.ypmed.2008.01.013

Eastwood, K. (2018, September 2). Living the traditional Aboriginal life. Australian Geographic. Retrieved 9 March 2022, from https://www.australiangeographic.com.au/topics/history-culture/2010/12/living-the-traditional-aboriginal-life/

Edwards, S. E. (2021). 'IF YOU CAN WORK FROM ANYWHERE, WHY WORK ANYWHERE ELSE?': FLEXIBLE CITIZENSHIP, REGIMES OF MOBILITY, AND THE DISCOURSE OF DIGITAL NOMADISM. AoIR Selected Papers of Internet Research. https://doi.org/10.5210/spir.v2021i0.11906

ENDSLEY, M. R., & KABER, D. B. (1999). Level of automation effects on performance, situation awareness and workload in a dynamic control task. Ergonomics, 42(3), 462−492. https://doi.org/10.1080/001401399185595

Europese Commissie. (n.d.). Sustainable blue economy. Europa.eu. Retrieved 9 March 2022, from https://ec.europa.eu/oceans-and-fisheries/ocean/blue-economy/sustainable-blue-economy_nl

Faccio, M., Persona, A., Sgarbossa, F., & Zanin, G. (2014). Sustainable SC through the complete reprocessing of end-of-life products by manufacturers: A traditional versus social responsibility company perspective. European Journal of Operational Research, 233(2), 359−373. https://doi.org/10.1016/j.ejor.2013.03.027

F.M. Technologies. (2021, June 23). Future Meat Technologies Launches World's First Industrial Cultured Meat Production Facility. Prnewswire. Retrieved 3 March 2022, from https://www.prnewswire.com/news-releases/future-meat-technologies-launches-worlds-first-industrial-cultured-meat-production-facility-301317975.html

Friedrich, C. D. (1818). Der Wanderer über dem Nebelmeer [Painting]. Hamburger Kunsthalle, Hamburg, Duitsland.Fry, R., & Parker, K. (2021, October 5). Rising Share of U.S. Adults Are Living Without a Spouse or Partner. Pew Research Center's Social & Demographic Trends Project. Retrieved 31 March 2022, from https://www.pewresearch.org/social-trends/2021/10/05/rising-share-of-u-s-adults-are-living-without-a-spouse-or-partner/

Gabr, H. M., Soliman, S. S., Allam, H. K., & Raouf, S. Y. A. (2021). Effects of remote virtual work environment during COVID-19 pandemic on technostress among Menoufia University Staff, Egypt: a cross-sectional study. Environmental Science and Pollution Research, 28(38), 53746−53753. https://doi.org/10.1007/s11356-021-14588-w

Galli, A., Iha, K., Moreno Pires, S., Mancini, M. S., Alves, A., Zokai, G., Lin, D., Murthy, A., & Wackernagel, M. (2020). Assessing the Ecological Footprint and biocapacity of Portuguese cities: Critical results for environmental awareness and local management. Cities, 96, 102442. https://doi.org/10.1016/j.cities.2019.102442

García, H., & Miralles, F. (2017). Ikigai. Van Haren Publishing.

Garcia, J., Luisa Martinez, M., & Silva, R. (2021, August 9). How Can We Use Ocean Energy to Generate Electricity? Frontiers for Young Minds. Retrieved 10 March 2022, from https://kids.frontiersin.org/articles/10.3389/frym.2021.609510

Hannonen, O. (2020). In search of a digital nomad: defining the phenomenon. Information Technology & Tourism, 22(3), 335−353. https://doi.org/10.1007/s40558-020-00177-z

Howard, S. (2021, January 21). Is the boom in communal living really the good life? The Guardian. https://www.theguardian.com/society/2021/jan/17/is-the-boom-in-communal-living-really-the-good-life

Jaloza, L. B. (2022, February 23). Connect 2021: Our vision for the metaverse. Facebook Technology. Retrieved 10 March 2022, from https://tech.fb.com/ar-vr/2021/10/connect-2021-our-vision-for-the-metaverse/

Jones, A. M., Rice, N., Robone, S., & Dias, P. R. (2011). Inequality and polarisation in health systems' responsiveness: A cross-country analysis. Journal of Health Economics, 30(4), 616−625. https://doi.org/10.1016/j.jhealeco.2011.05.003

Jusot, F., Or, Z., & Sirven, N. (2011). Variations in preventive care utilisation in Europe. European Journal of Ageing, 9(1), 15−25. https://doi.org/10.1007/s10433-011-0201-9

Kapferer, J. N. (2012). The New Strategic Brand Management: Vol. Second Edition. Kogan Page.Kenney, M., & Zysman, J. (2016). The rise of the platform economy. Issues in Science and Technology, 32(3).

Khalili, J. (2022, March 16). Microsoft reckons businesses are making a few fatal hybrid working mistakes. TechRadar. Retrieved 17 March 2022, from https://www.techradar.com/news/microsoft-reckons-businesses-are-making-a-few-fatal-hybrid-working-mistakes

Konstan, D. (2018). Epicurus. The Stanford Encyclopedia of Philosophy.Kooke, S. (2009, February 11). Autarkie, de romantiek ontstegen. Trouw. https://www.trouw.nl/nieuws/autarkie-de-romantiek-ontstegen~bec60fec/?referrer=https%3A%2F%2Fwww.google.com%2F

Kurzweil, R. (2005). The Singularity is Near: When Humans Transcend Biology. Viking Books.

Kuys, D. (2021, November 12). Een blik in de toekomst van mobiliteit. VPRO. Retrieved 10 March 2022, from https://www.vpro.nl/programmas/tegenlicht/lees/artikelen/2021/een-blik-in-de-toekomst-van-mobiliteit.html

Landrum, S. (2017, August 30). Here's Why Millennials Are The Most Data-driven Generation. Forbes. Retrieved 22 March 2022, from https://www.forbes.com/sites/sarahlandrum/2017/08/29/an-inside-look-at-millennials-love-of-data/?sh=41b7593271e4

Lassche, G. (Director). (2017). Brommers kiek'n [documentary]. NPO

Light phone. (n.d.). The Light Phone. Retrieved 24 March 2022, from https://www.thelightphone.com/

Lund, S., Madgavkar, A., Manyika, J., Smit, S., Ellingrud, K., & Robinson, O. (2021, September 9). The future of work after COVID-19. McKinsey & Company. Retrieved 2 March 2022, from https://www.mckinsey.com/featured-insights/future-of-work/the-future-of-work-after-covid-19

Machado, C., de Salles Hue, N., Berssaneti, F., & Quintanilha, J. (2018). An Overview of Shared Mobility. Sustainability, 10(12), 4342. https://doi.org/10.3390/su10124342

Marr, B. (2021, January 5). The Future Of Virtual Reality (VR). Forbes. Retrieved 8 December 2021, from https://www.forbes.com/sites/bernardmarr/2020/12/18/the-future-of-virtual-reality-vr/

Maslow, A. H. (1943). A theory of human motivation. Psychological Review, 50(4), 370−396. https://doi.org/10.1037/h0054346

Mayer, F. S., Frantz, C. M., Bruehlman-Senecal, E., & Dolliver, K. (2008). Why Is Nature Beneficial? Environment and Behavior, 41(5), 607−643. https://doi.org/10.1177/0013916508319745

McDonald, J., & Cater-Steel, A. (2016). Communities of Practice (1st ed.) [E-book]. Springer Publishing.

McKinsey Technology Council. (n.d.). The top trends in tech. McKinsey & Company. Retrieved 22 March 2022, from https://www.mckinsey.com/business-functions/mckinsey-digital/our-insights/the-top-trends-in-tech

McMichael, A. J. (2015). Extreme weather events and infectious disease outbreaks. Virulence, 6(6), 543−547. https://doi.org/10.4161/21505594.2014.975022

McSpadden, K. (2015, May 14). You Now Have a Shorter Attention Span Than a Goldfish. Time. Retrieved 21 March 2022, from https://time.com/3858309/attention-spans-goldfish/

Metzger, M. J., Murray-Rust, D., Houtkamp, J., Jensen, A., La Riviere, I., Paterson, J. S., Pérez-Soba, M., & Valluri-Nitsch, C. (2017). How do Europeans want to live in 2040? Citizen visions and their consequences for European land use. Regional Environmental Change, 18(3), 789−802. https://doi.org/10.1007/s10113-016-1091-3

Mirbabaie, M., Stieglitz, S., & Marx, J. (2022). Digital Detox. Business & Information Systems Engineering. https://doi.org/10.1007/s12599-022-00747-xMocella, S. (2021, July 5). Boat Buyers Are Getting Younger, According To Recent Trends. DockMaster Marine Software. Retrieved 6 April 2022, from https://www.dockmaster.com/boat-buyers-are-getting-younger-according-to-recent-trends/

Morfin, M. (2015, November 4). 10 of the Oldest Cities in the World. Culture Trip. Retrieved 14 April 2022, from https://theculturetrip.com/middle-east/lebanon/articles/the-10-oldest-cities-in-the-world/

Müller, A. (2016). The digital nomad: Buzzword or research category? Transnational Social Review, 6(3), 344−348. https://doi.org/10.1080/21931674.2016.1229930

Myers, N. (2002). Environmental refugees: a growing phenomenon of the 21st century. Philosophical Transactions of the Royal Society of London. Series B: Biological Sciences, 357(1420), 609−613. https://doi.org/10.1098/rstb.2001.0953

Nefzi, F. (2021, December 27). Farouk Nefzi on the Millennial takeover. SuperYacht Times. Retrieved 3 March 2022, from https://www.superyachttimes.com/yacht-news/farouk-nefzi-on-millennials-and-yachting

Nelson, J. (2013). Before They Pass Away. teNeues.Ng, E. (2020). No Grand Pronouncements Here. . .: Reflections on Cancel Culture and Digital Media Participation. Television & New Media, 21(6), 621−627. https://doi.org/10.1177/1527476420918828

Ormel, J., Cuijpers, P., Jorm, A., & Schoevers, R. A. (2020). What is needed to eradicate the depression epidemic, and why. Mental Health & Prevention, 17, 200177. https://doi.org/10.1016/j.mhp.2019.200177

Pew Research Center. (2022, June). Political Polarization in the American Public. https://www.pewresearch.org/politics/2014/06/12/political-polarization-in-the-american-public/

Philips. (2019, September 19). 2040: How technological innovation will have changed our lives and society. Retrieved 3 March 2022, from https://www.philips.com/a-w/about/news/archive/blogs/innovation-matters/20181217-2040-how-technological-innovation-will-have-changed-our-lives-and-society.html

Pruitt, S. (2020, 8 mei). The Real Story Behind the 'Migrant Mother' in the Great Depression-Era Photo. HISTORY. Geraadpleegd op 28 juli 2022, van https://www.history.com/news/migrant-mother-new-deal-great-depression

Reid, G. (2020, January 16). Why the future looks bright for solar energy. World Economic Forum. Retrieved 22 March 2022, from https://www.weforum.org/agenda/2020/01/the-future-looks-bright-for-solar-energy/

Rendell, L. (2022, February 17). Exploring Resilient Water Futures with a + TU Delft Residency. SPACE10. Retrieved 20 April 2022, from https://space10.com/exploring-resilient-water-futures/

Small, M. F. (2008, November 7). How Great Leaders Evolved. Livescience.Com. Retrieved 4 March 2022, from https://www.livescience.com/3018-great-leaders-evolved.html

SpaceX. (n.d.). Starlink. Starlink. https://www.starlink.com/

Swant, M. (2021, April 20). Silence Is Not An Option: Research Shows Consumers Expect CEOs To Take A Stand On Political Issues. Forbes. Retrieved 10 March 2022, from https://www.forbes.com/sites/martyswant/2021/04/19/silence-is-not-an-option-research-shows-consumers-expect-ceos-to-take-a-stand-on-political-issues/?sh=1564707f46c6

Tollefson, J. (2022, April 5). What the war in Ukraine means for energy, climate and food. Nature. Retrieved 20 April 2022, from https://www.nature.com/articles/d41586-022-00969-9?error=cookies_not_supported&code=00907261-57cc-455a-a42e-8d11064f20cf

Tree, I. (2021, October 29). Lockdown awakened our interest in nature, but it mustn't be at the expense of wildlife. The Guardian. Retrieved 15 March 2022, from https://www.theguardian.com/commentisfree/2020/dec/28/lockdown-nature-expense-wildlife

Vollset, S. E., Goren, E., Yuan, C. W., Cao, J., Smith, A. E., Hsiao, T., Bisignano, C., Azhar, G. S., Castro, E., Chalek, J., Dolgert, A. J., Frank, T., Fukutaki, K., Hay, S. I., Lozano, R., Mokdad, A. H., Nandakumar, V., Pierce, M., Pletcher, M., . . . Murray, C. J. L. (2020). Fertility, mortality, migration, and population scenarios for 195 countries and territories from 2017 to 2100: a forecasting analysis for the Global Burden of Disease Study. The Lancet, 396(10258), 1285–1306. https://doi.org/10.1016/s0140-6736(20)30677-2

Wappelhorst, S., & Cui, H. (2020, November 11). Growing momentum: Global overview of government targets for phasing out sales of new internal combustion engine vehicles. International Council on Clean Transportation. Retrieved 22 March 2022, from https://theicct.org/growing-momentum-global-overview-of-government-targets-for-phasing-out-sales-of-new-internal-combustion-engine-vehicles/

Wiss, E. (2020). Socrates op sneakers. Ambo/Anthos B.V.World Ocean Review. (2021a). The Ocean, Guarantor of Life – Sustainable Use, Effective Protection. maribus. https://worldoceanreview.com/en/wor-7/

World Ocean Review. (2021b). WOR 7 « World Ocean Review. Retrieved 20 April 2022, from https://worldoceanreview.com/en/wor-7/

Xiao, Y., & Fan, Z. (2022, January 13). 3 ways digital currencies could change global trade. World Economic Forum. Retrieved 14 March 2022, from https://www.weforum.org/agenda/2022/01/digital-currencies-international-trade/

Zogopoulos, E. (2020, July 16). Why Blue Economy Is So Important. Energy Industry Review. Retrieved 21 March 2022, from https://energyindustryreview.com/analysis/why-blue-economy-is-so-important/

6. Appendices

Appendix 01.
Contest Questionnaire

Inclusief

Genieten

Voorzichtig

Aanstootgevend   Monotoon   Eerlijk

Exploratief   Grappig   Betrouwbaar   Lui

Altruisitisch   Dominant   Flexible

Weerbaar   Creatief   Traditioneel

Moedig   Volwassen   Ambitieus

Speels   Wijs   Autarkisch

Anders..............

Cool   Old-School   Toegankelijk

Simplistisch   Verstorend   Verrassend

Emotioneel   Grensloos   Duurzaam

Innovatief   Customizability   Prive

Kwaliteit   Luchtig

Prestatie   Rationeel   Serieus

Doelgericht   Ingewikkeld   Open

Vrije tijd   Exclusief   Discreet

Opzichtig   Elegant

Avontuurlijk   Comfort   Luxe

Segment

One-off

Customizability

*Larger boats

*Where we are

Kosten   *Where we want to be

Budget   Premium

*Smaller boats
*Smaller boats

Standaard

Gevoel

Tech-feel

Tast | Prestatie

Comfort — Racer

Mechanisch

Vormgeving

Hedendaags

Styling | Figuur

Krachtig — Elegant

Klassiek

Technologie

Gadgets

Functie | Innovatie

Bewezen — Nieuwst

*Where we are going towards

*Where we are

Nodig

Future of Contest

Verbonden eiland

Technologie | Doel

Recreatie — Wonen

Digital Detox

Appendix 02.
Interview Transcript WB

An interview with Gillian Brown, from Wetzels Brown Partners. The external bureau that designs Contest interiors. It was a live meeting in their office in Amsterdam. Contest was represented by Robert. He was online present via zoom.

Joost: Innovation in yachting industry is difficult. Setting up a roadmap might be worthwhile to develop early.

Robert: Jim introduced Joost to me and we talked with Arjan about the possibility to do this. We want to have this look in the future to meet our goals and objectives in the timeframe.

Gillian: When you talk about a digital nomad really niche group of people. Because I noticed in your report you mention people are not buying houses anymore but boats. I think that appeals to people that buy a twenty-year-old second hand boat, but the difference between een average house and the price of a Contest is five or ten times. You wouldn't make the choice between a house and a boat. Because it costs you 10% of the original price of a boat to run it, so it is really a niche kind of thing.

Joost: So far, I have been talking to people, and it would seem to be a niche market. They are really the high-end programmers from companies like Adyen, Take-away. But at first, I am interested in digital nomads to explore the world. Later on, I will further define what Contest as a premium yacht builder can achieve in this market. I foresee that there is something happening, but I don't know how. What can Contest do to provide for these people. I did a small a calculation on the costs and well Contest are quite costly. My granddad always said a sailing yacht is the most expensive way to come around for free.

Gillian: Yes, and you have to be able to sail. Some digital nomads are more interested in their computer connection than the ability to sail.

Joost: That is also kind of what I was looking for. So, there is a possibility that you have communities all over the world and you can decide with your boat which to join. In that way go all around the world. For some people they have the luxury to own a yacht themselves but for other people, larger Contests, can fit multiple families. Sailing around the world would become a possibility for them. That was the first small idea I scratched down.

Gillian: There are a lot of people that sell their business, but still work. And they want to go around the world and they can become digital nomads. They still have an income and only need to watch their companies. They have allocated themselves more free time.

Joost: Retirement people

Gillian: Yea, they could be 35. They decide to sell up the business and keep in touch and try new things whilst seeing the world before they are too old.

Joost: In a way they also embody our current world to see the whole world. Everybody feels the right to explore the whole world. But at the same time, we have this paradox where we are constantly environmental aware but then we do choose to take an airplane to Thailand. While if you can work being on a ship, you can also explore other sides of the world. Without having that impact

Gillian: There is a small point in sailing yachts. That the clients use the motor because they don't want to ruin the sails.

Joost: To ruin the sails?

Gillian: They don't want to get cracks in the sails. On the big boats sometimes, they don't sail them across the Atlantic, but they put it on a freight boat because it is cheaper than buying new sails. To actually pay the freight to get it across the Atlantic. Because the crew won't put the sails up to save them. It is not always used for sailing.

Robert: Very few owners sail the boat themselves from Mallorca. Many just hire a crew to do it. And some put a boat on a freight. To bring it numeral locations

Gillian: There is a lot of these boats that do not have a crew. But if the crew is on board, but the owner isn't, it is unlikely to use the sails. You could break it, and there is no point in sailing to Mallorca

breaking the sails. When the owner arrives for his two-week sails and you have to say you broke the sails. It is an insurance policy as well.

But that is perhaps an extreme example. It is not always environmental to own a sailboat. It is better than a motorboat.

Joost: A sailing yacht is also a lot more hydrodynamic, so you'll probably use less fuel.

Gillian: Yes, and you got a smaller engine. (It is still pretty stupid)

Joost: I sail quite a lot. Granted on a lot smaller boats, but I have rarely had that one of my sails gave out. Or is that chance more likely on these boats?

Gillian: I know several times that the sails have given out. Captain made the wrong call; the sails were ripped by jibing at the wrong moment.

Robert: You can plan a journey. And you know what today is bringing, but probably not tomorrow or the day after. So, this can just happen.

Gillian: So that's a side thing. You are going to your digital nomad. I think that is nice. It is probably a mix of the people that in their head are IT person, but in their heart, they just want to discover their backpack and not worry about any other things. Just be at the place where they are.

Joost: Especially if you take a look at current increasing servicing economy, where people rent their stuff and they care a lot less about if they actually damage it.

Gillian: Do you think that is going to continue? Or do you think people are going to be caring more about it. The whole idea is not to deplete the planet. Twenty-five years ago, it wasn't such a big deal to keep replacing your clothes the whole time. You didn't have Adidas written on your trainers. You could just have nice trainers. And now, you can have no money, but you have to have Adidas written on your trainers. Even if you can't afford to live, you should still have branded clothing. Maybe the world is going to change a bit and be much more about not worrying materialistic things.

Joost: In my studies we are confronted a lot, that there is current legislation. They are trying to make companies more responsible for the products they produce. So, they are working on, for instance, Philips. In a guest lecture, they told us there is a real possibility that they are going to be responsible for all the LED lights that they are selling right now. They need them to be good, and they should be able to take them apart. Otherwise, they have this huge amount of combined materials which they can't get separated.

Gillian: That could be interesting for the Contest aspect. Things you take of the boat should be easily recycled. We talked to a carpet company, and they'll take back all your carpet. They make their products totally recyclable. Maybe the materials that the boat are made from is what is going to change.

Joost: You have been designing yachts for a long time now probably. I guess you have also seen a lot of different materials around.

Gillian: They haven't actually changed that much. There are new ideas of finishes that look prettier. These finishes make it look better in the long time.

Joost: So, to start about designing. I was wondering if there is going to be a new yacht designed than Contest comes to you well, we are doing this new 59ft yacht. From what do you start.

Gillian: We start from who the client is. They (Contest) give us a brief who they are aiming at. Are they aiming at retired couples that just want to sail around with a couple of friends. Or a family, or race weekends. You can see that with the 49 and 50. If you look at the design of the 50. You would say perhaps that was more classic, older couple. This is gross generalization. And the 49 you would say is more a young family. More modern design. Lower profile. It is a more sporty boat. It is usually that they tell us who they are aiming at. Or perhaps people want to buy a smaller boat. They love the small one or they want more space.

Joost: So, Robert, how do you decide for who to design a boat for.

Robert: That is something what Arjan is doing. I am not really involved in that process. As far as I know, Arjan gets demands from the market. [indistinctive audio]

Gillian: Companies that don't try to build a boat to go around the world. They make them for what people use them for. Which is just to go small distances have fun and swim. I think what you said about COVID perhaps happend and Arjan saw that in the market. The difference between a 67 and a 72 with a crew. When COVID happend people wanted to be on something smaller like a 50 and sail it themselves. Thereby only dependent on themselves and no other people. They didn't want to go to hotels and there was this new vision that COVID was never going away. People wanted to buy boats that they could be independent on. Smaller and more manageable to sail. And also, your crew could get COVID, and you couldn't go anywhere.

Joost: Probably with me a lot of other people encountered this problem. COVID was a big

problem for Nomads as they couldn't enter a port.

Gillian: On some of the big boats the owner wanted to have a holiday on it he didn't charter it the two weeks before. Otherwise, his holiday would cancel of the crew got COVID from the charter guests.

Joost: Are there also a lot of people with a Contest that charter their boat?

Gillian: Probably not with Contest but with bigger boats. I don't know maybe they do. The PH3 (72ft) is being chartered. It is the first Contest I did.

Robert: the owner wanted a 72 ft with a crew. At that time, it was also the biggest boat we built. Before we did a 62 ft in which the customer had a caretaker. The caretaker made sure that the yacht was always in good condition. Sometimes also as captain.

Joost: 10% still goes for a crew?

Gillian: Yes, the value of the boat goes up. So that includes the crew.

Joost: You want to have a flow throughout the yacht. So, do you only have the hull and then they say design the interior? Or do you already have predefined rooms?

Gillian: Certain bulkheads are predefined because of the mast. Predefined a little bit yes. Because the clients are aiming what Contests is aiming at saying they want a number of cabins. But we always move on the design a little bit more can be generalized as more open and connected. Every time they become a bit lighter or feeling larger. The shape of the boats is changed from deep and narrow to wide and shallow. That changes the way you approach the design. The Contest design is more about the interior design market than what the clients want. What the clients want is a nice boat that is modern with the accommodation they want, but they don't particularly want changes. Sometimes they want 20-year-old designs. Other are happy to go with new waves. There are more wine coolers and coffee machine that make it feel a little more luxurious. Comfort is particularly what people want. I think everywhere people want more personal comfort.

Joost: That was also I sent about the Mercedes picture. You get more technology in yachts. I imagine having all those screens is something you either want or you want to avoid it.

Gillian: I think you have to analyse what people of the future really want. People of now sit and watch Netflix. But people of the future say there is more to live than watching Netflix. So actually, we put less TVs in boat now. People say we are out in this beautiful sea with a fantastic sunset. And you don't

want to watch a movie. We are doing water sports, seeing animals, or just talk.

Joost: There has been a time where there were more TV's? Where was the turning point. People want less and a more pure experience.

Gillian: Well motorboat people are different from sailing boat people. Motorboats is generally your private hotel. You want everything that is in a hotel. It becomes more a home. Sailing is more difficult than a motorboat. A motorboat goes from A to B and a sailing boat has to go in a zigzag to get there. There is no straight way to do anything. You sail because you like the journey not the destination. Whereas the motorboat person, generally, is more interested in the motor switching off when you get to the destination. If the person likes the journey, you are unlikely to want to watch tv all the time. Apart from the fact that in sailing boats watching tv makes you sick. So, it is more the spirit of the person. We have motorboat clients and sailing clients. Sailing clients are usually really motivated, open and casual people that enjoy that something extra. They are not just trying to get to the next restaurant. Everything is more complicated about sailing. It is more expensive, more breaks, you need more knowledge. I think that they enjoy the journey, and they are experts at sailing. But they are not engineers. They like a little bit of help.

Robert: People are also buying sailing yachts because they want to buy a sailing yacht. Not because they are real sailors. For a 62 ft we once had to make a manual. Basically, how to sail for dummies. To show you what the difference can be with our customer base right now.

Joost: There is a lot happening on a yacht. In what way do you design interaction. Or envision it. You have limited space. So, the lounge area the same as the dinner area.

Gillian: You mean flexibility. Things have to have two functions. Probably not more than two functions. You have lots of uses, but not more than two functions. People don't like to keep moving their furniture around for every different use. You can have a table that can go up and down for a coffee table. Or a bed that slides out for extra people to sleep on. Clients don't want to spend their holiday refitting their furniture. It is more flexibility in how you can use is. Which probably means compromising in what you really need rather than what you think you need. People also want privacy, having an open plan where people sleep together doesn't communicate luxury.

Joost: That is probably a bit too much of the open spaces. Do you then decide together with a customer which kind of functionalities are not necessary.

Gillian: That is more what we do with Contest. Deciding which functionalities to give the client. That is what our expertise is. Our work is to see what they want. Sometimes they come with special requests. One client had two hundred books. Whereas the next clients doesn't have any books. So, he would prefer cupboards. There is tailoring it in a small way. But for what the boat offers, it is usually a conversation with Contest and that is to what people have been asking for. What Contest has seen in the market. How they experience their own boat last year and what they would want to change. Progressing that line of thought. It is always trying to improve.

Joost: Do you also do refits? What do they want differently?

Gillian: Yes! I have done some Contest. Mostly to change the upholstery because it is not their colour rather than actually moving the furniture. The furniture works. It can't really be improved upon. A bedroom needs a bed and a cupboard, but there is only one place for the bed and for the cupboard. It is more about how it looks than making it their own boat. Think about cushion and colours. It is the looks rather than the functionalities.

Joost: This current type of yacht, of course the shape has changed. The overall layout has barely changed throughout the past decades. Apparently there the best way to do it.

Gillian: You usually want to sleep at the back, because it is less hitting the waves. That's the owner's cabin. The saloon should be near the bed. The galley should be next to the saloon. There are some very simple connections. I have worked on boat concepts in the past that have been about stripping out the interior and treating it on a lounge. That was on a motorboat where the client wasn't going to sleep on it. More like a party boat. That is a very niche market. That group doesn't want to do anything useful. The time I got an empty hull at the beginning, the cabins had a slightly different layout. But the same functions. It was playing around what the bathroom was looking like. The layout was largely the same, but the functions remained. The flexibility is how you do the lounge and the galley space. It is whether the galley could become in the lounge. In several Contest, the decision is to have the galley aft down one side of the engine room. You will find lots of other brands having the galley forwards. Or the galley in the lounge. Saying that people are just going to eat and sit outside. Rather than having a lounge.

Joost: So more like current housing interiors. Also, in line with the more open spaces.

Gillian: It is more like a loft suite. I think it could be more open. But that only appeals to the people that

like open spaces. That is probably half the people. Open spaces in a sailboat aren't very useful. You are falling around when there is bad weather. There is a reason why all the spaces are tight. It is not just to make them tight. It is also protecting you from rough weather. I have been on a boat with big open spaces and when the captain tacked without warning us. We all had plates of food in our hands, and we ended up sliding across the boat with the plates of food. After that we put some handrails in. Not that I had a hand for the handrail because I had two plates of food. I'd say that open spaces aren't to everyone's taste.

Joost: Where do you start your inspiration?

Gillian: We start with mood boards and the way we are thinking. The last boat shows you what you would like to do different on your next boat. Showing you what works. Experience and materials, we'd like to put materials next to each other.

Joost: Bit of a discussion with the client

Gillian: Contest are semi-custom yachts. Whereas you talk with the client on a custom yacht. If you apply it on a Contest half of the work on their boats is to make the boat nicer for the client. The other half is to make the boat more efficient to build. Because if it is more efficient to build, then you spent less building it. Which means ultimately Contest makes more money rather than going bust. The nice idea of it is that you have enough money left to build other nice things. You don't need to waste money by putting too much wood on the back of the wardrobe. The clients benefit from both the design and the production. If the production is streamlined, then probably the doors work better. The finish more durable. Everything works better when the production is also working more efficiently.

Joost: Does that mean that you also think about assembly during designing.

Gillian: Also with boats, the weight of the boat is important. If it is heavier, it goes slower. Beyond a certain point. If you don't need the extra don't put it in. You always try to figure out how much you need.

Robert: For us right now it is important to build a complete vessel. That covers all the needs from our customers. And that all the things we offer are good. They shouldn't give room for question. That happened in the past.

Gillian: You don't come to Mercedes I really like that seat, but I think I would like it a different shape. They developed that seat for years and it is perfect for what we do. That is the only thing we sell. What Robert is saying, is if Contest stays ahead

and create things that really work then the client doesn't need to change it. You shouldn't design for a particular client. There ideas aren't better, but just different. If you already set-up a good base.

Joost: In the case of, which is a mass-produced, product, I can understand their ability to say: "we can't change it because this fits and this also fits all the requirements." But if you buy a yacht which is probably even more of a luxury product, I think people feel that for the price they pay they have the right to change it. I believe that the people designing it have a better idea of how it works. The client thinks that he knows just as much.

Gillian: I think that is what is changing in yachting. There is so much more knowledge in designing in this business than twenty years ago. So, the less margin for people to have to change it. Or knowing better. You talk about Contest, you talk about production yachts, not custom yachts. They are expensive, but they are expensive because there is a lot in the boat. There is a lot of technology, building, and a long time to develop. That is why they are expensive. Cars have a different quantity to price ratio. Contest is still production. If you really want your own boat, you should be in a different price bracket. Probably around 30 million. Then you have the right to choose exactly what you want. But buying a Contest it is just the sheer volume of details, that makes it the price it is. Not that it is expensive so you can have what you like. There is a lot that you can't change. Bavaria and Hanse are cheaper but then you get them as they come. But if you buy a Hallberg-Rassy... Mostly the clients the colour of the upholstery and the finishes. When it is a new model there is a little more opportunity that you want it different. Because you are buying a Contest because you believe that Contest can provide you with the things you need. Rather than looking for someone to build what you want them to build. People that come to Contest because they like straight lines.

Joost: I also know people that buy yachts with two families and go on a holiday together. In what way would you then change an interior. Would you make the sleeping rooms a little bit larger.

Gillian: On a Contest you end up with two master cabins. Forward and at the back. The parents can have an equal feeling in the boat. They don't want one to be in luxury and the other one camping. I have been sleeping in the saloon of a boat and that felt like camping. You try to make it equal. All the children would manage with what is left. Some people have to have a place for everything and everyone. Other people use it more freely. If you have two families on board a boat that isn't the size for these two families. Then you go outside a lot more. Who are you trying to impress with it. Some people buy boats to impress people.

Joost: If you really want to impress people you probably rather buy a motor yacht. Considering that you can't sail.

Gillian: Yes, probably big motorboats. But sometimes also by sailing boats. The more elegant looks. You can impress your friends. When I stood next of the launch of the 67, I talked with the owner of the next 67. He just at me and said this is so amazing. Mine is going to be the next one! So exciting isn't she beautiful. There is something about sailing boats that I don't find in motorboats. You get really emotional at the launch of a sailing a boat. It is a being.

Gillian: If you want to look at things, you should look at car design. If you look at the latest car designs. They don't have super futuristic seats in them. They have Scottish Tartan. And home feel, sometimes even wood floors. We are going more to earthly experiences.

Joost: It is kind of a long way if you look at car design exterior. Because there it seems the more aggressive it looks the better.

Gillian: But not the interior. I saw several cars that have pot plants in them. They didn't even look like very exciting plants. Not even exciting plants. I think it is what they make the boat out of is the way Contest will evolve. It is ecological / recyclable / lightweight. We don't want to knock down trees anymore for our deck. The result wouldn't necessarily look very different. Interiors you live in, and you wear out, so that would need to be recyclable. Recycled materials are also increasingly easy to come by. Even this year already.

Joost: Any last trends that I should consider?

Gillian: Ah that's giving away secrets! No but friendlier and more personal. Personal doesn't have to be different from other people personal. But it is about 'me'. In a positive way. Thinking of who to spent time with. We always try to surprise people with new little gadgets and gimmicks. Something we haven't discussed so far is safety. People need to feel safe. That is something we also design. We have rounded corners, handrails where you need them. On the bigger boats how, you can get out. It is really important that the bad thing will never happen, but if it does that you have the feeling someone thought about it.

Appendix 03.
Interview Transcript J/V

An interview, done in two parts, with Johan Siefer. He is the CEO of Judel/Vrolijk & Co, a naval architecture bureau in Germany. This company has recently been involved with the design of the Contest range. It was a digital meeting via zoom on the 5th and 7th of April. Furthermore, Robert from Contest was present.

This meeting was used to get feedback on the future use analysis and the first ideation. During this meeting the shown sketches where used. In the second part of the meeting, we further discussed the ideas.

Response on the cluster:

Johan:
I just see that the group of people that you are looking into, gets more concrete / shape. Because looking at the different clusters you talk about, there is a certain group that can choose the way of life. This is only for a little group. Because there are a lot of people like education and money that would be able into this area. What I see is that you are still having in the back of your head that we as a community are wealthy. So, we still grow in our economies, and we are able to generate money to try to reduce footprint by technology. Not by reduction in our daily lives. So, what you are saying is going to a certain direction which I now start to understand.
We have a lot of discussion in this area right now. With exploring the world and the amount of energy flying around the world costs. It is a matter of discussion in all communities right now. On the other hand, this recreating our footprint; you talk about the Great Ocean Clean-up. Yes, this is a solution on the other end of the problem. The start of the problem is the plastic and the oil we use. If we continue living like we do now. On the healthy and high standard and invent techniques to somehow reduce our waste. That is what we are doing right now. I think a lot of ideas and talks are on the first end of the line. The reduction.
Currently we are discussing a lot of our journeys to the yards. It is not always necessary to meet in person, but we do also need a personal connection. It is hard to create that online. As a company we produce a luxury product, and so we are in the middle of all these thoughts. We can't build a boat that every person is able to buy in Europe. From farmers to construction workers won't be able to afford our products. It is a luxury branch. For sure

the people that are able to live like you outline here, they are customers for this product. If I say, what about the people that are on a fixed base contract and have four kids. They can't live the life you show here. On the other hand, if these people have a lot of money, they can do it.

Robert:
Also in the next twenty years, other influences can change the whole future. Let's say first COVID. Right now, the war in Urkaine, that makes coal an old and new way to get energy. You will have quite some uncertainties towards the future. What I was also wondering. Judel/Vrolijk are not designing a ship for themselves. There is always a shipyard in between. Judel/Vrolijk might wish to become sustainable to do that within their own facilities. Like traveling less. But to do something in the design of the boat, that is more the instruction from the shipyard. Their demand should be to make a sustainable boat. Instead that you design that for them, because than it will become more expensive.

Johan:
That is true. I think that when we do discussion on projects, we try to implement steps, perhaps small, but steps to the right direction. It is often that we discuss together and think about new options. What is possible. But it is only small steps so far. The difficulty is to really get a hand on all the options you have. When we are talking about the materials (the grp?). How can you recycle, can you recycle? If you have a good GRP boat and you maintain it, it doesn't decay. Otherwise, it will fall apart. Do we want boats from materials like wood, which grows pretty fast? And has to be thrown away after some years because it is rotten. Or to metal which can be recycled for 90%. There is a

lot of ways and a lot of thoughts in the materials. The difficulty at the end is that we are in a product that is pleasure. If you say you want to reduce, you can also get rid of it. I don't want to make it. That is a difficult dilemma. To get a build boat more sustainable.

Of course, building a sailing boat is more sustainable than a motor yacht. But we try to push further. On yachts you can choose the high-class regatta yacht. There we are looking into different options. The boat that we have there, are from carbon. It is hard to recycle. On the other hand. What you have there, there is not much boat. You don't need interiors and systems. For each concept you have different options to look into. Do you want it light or performing? Or do you want to have nice systems. [internet connection unstable]. ... It is a broad discussion.

Talking about J/V design:

Johan:
When we see internally that we have good ideas that we want to present and look into it. We want to use it for showing what we can do. Then that is a J/V boat.

When we design boats for one-off clients, then we start with different steps. Concept studies and different designs. This is because we have to develop the boat with the client. The client has to understand what he has. From the beginning the concept study he understands what he is going to get. [internet connection unstable]. ... He gets visuals and layouts but also specifications to get offers from the yards. We need to do these first steps because he needs to know how much money he has to pay for the project and when it will be finished. Then we can outline who can build the boat at what cost and in what time. Now the customer can say, that is too much or too long. These studies we also show on our website. [internet connection unstable].

Response on worldview and first ideation:

Johan:
Did you see for the bigger yachts. They are starting something like that. They are superyachts about 120-meters. Based on shared ownership. You buy the apartment on the yacht. It was on a bigger scale. The idea they proposed are not removable. But the shared ownership is definitely in there. You want the clients to have their own box? [yes]. So, they don't have to share their sofa with other people. To make it a bit easier.

Robert:
One thing I can think of. If we talk about the families who might this. In the drawings you showed eight cabins. That will be quite big boat. From my experience, some people of our current customer base. Already find a 55 ft a big boat. They might be anxious to sail on a 63ft. That is maybe something to be keen on.

The second thing is the bigger boat can't come on all the places. When we build the 72 ft with a deep keel, the customer wasn't able to get into the cosy harbours anymore. He had to be in between ferries and fisher boats.
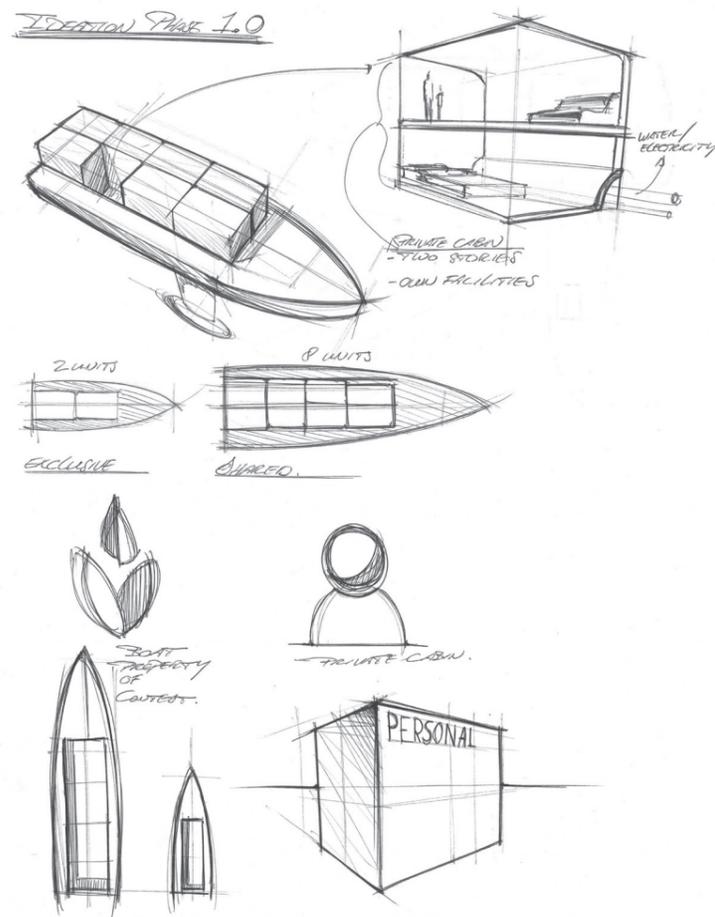
Johan:
This is definitely something to be aware of. The draft, but also the bare size. You will lose certain harbours. You can also think about different cabin sizes. The one for this 40-meter boat [part of the drawing]. Also, right now we have cabins on yachts that are quite small. For people that want to have their own cabin. You can also think about 3 by 1,5 meters. The comfort you have to choose your own fit-out of the cabin and make it individual. This is for sure something that you can have on the bigger cabins. The smaller cabins there is little place to change something and personalize it. It could be more difficult for certain owners.

Robert:
Space is on all our yachts a problem. Even on the bigger ones. There is always a battle between interior, systems, construction.
I think you have a good concept, but it has some things to think about.

Johan:
I think the first point, recreating our footprint. We talked already about sustainable materials. The group of wordings that lead to a certain conclusion or certain type of people. Which mainly live in the idealism of the virtual community and are independent. This can be a base for the next idea of this shared yacht.

One thing when you talk about autarkic ideals, I would comment with the boxes you introduce as exchanged part. That for sure needs a lot of organization and also infrastructure. You need storage and an ability to change those boxes. To deliver this autarkic ideal, you need to make a whole infrastructure.

If you think about little harbours or little bays, you can't exchange cabins there. You have to go to a larger harbour to reorganize and then come back to the remote area where people want to chill or start their journey. Or you start on a certain meeting point in a harbour and start your adventure from there. The really autarkic ideals are a bit difficult with the whole organization and infrastructure. This is a restriction.

When looking at the units themselves. I made some additional thoughts on what we discussed already. To make this happen, the boat needs a certain size. I can show you a drawing of a yacht we are currently working on. Looking at the sketches of the boxes with two levels, it becomes a large unit. We shouldn't talk about centimetres now, but if you look at the drawing the height is a problem. Also, when you look at the necessary rooms, the size becomes a bit larger. [further talks on drawing of 30-meter boat]. Everybody should have his own box, and you need a meeting space. On this concept, you see that we have four cabins available. That are able to be sold to clients. You need a galley, bathroom, kitchen. Perhaps you have toys [dinghies, diving gear etc]. Something such a group of yacht owners is interested in. We already have a small group cabin and an integrated captain's desk. Captains need that to prepare for harbour entries, to manage the supplies and the fuel. All the bureaucracy stuff to enter new countries. You need to get through customs. There is a lot of area necessary to run a ship. So, what you see is when you are talking about certain comfort size in the cabins. It is almost 5x2.5[m] with a small bathroom and a desk and locker. Maybe this is something, depending on the context it is also something you can consider building smaller units. Really small, like in a normal yacht. But with less comfort. Just regarding the design and concept parameters to run a ship like this, you have to do another loop of the size of the concept you want to offer. On the one hand you can go for the big box. But in the medium area, I think it is interesting what you can offer to the clients. What is the comfort they get. I think there could be certain sizes of boats that work. But I think you sketch a

bit and look a bit in the sizes that make sense.

Robert:
Isn't that maybe that until size, for example 25 meters, you might end up with a stand-up boat. Instead of a flexible boat, and then from that certain size it is easier to make it flexible. Easy probably isn't the right word. It is more worth the effort. Also, the item Johan shared with us. [the cruise ship with individual apartments], was very interesting. You can have your own apartment or living space. That so many people are willing to have a space on that boat. Those people, with that amount of money, don't have the influence about where to go. Because you live with hundred families. You don't always go where you want to go. The concept Johan showed, with the smaller boat, you have more ability to decide where to go. It shows that at least there is a market that people are willing to have such a space. You can place your question mark if that cruise ship is environmentally friendly solution instead of the sailing boat. If we talk about sustainability towards 2040.

To keep the focus. Right now, we are looking at a certain concept that it might be. But your initial project is to see how yachts might be used at that time. I think this is really going into depth in a certain concept and if I look at the size of Contest yachts, then that might be else than what we are talking about right now. Of course, we can scale up. But there will still be a demand from people to have an individual boat. There will always be the wish to have something for yourself. Maybe with individual choices. Having a boat not too big. You might up in the range of lengths that we are building right now. Probably also in the future.

Johan:
That's true. I agree with you. The 85ft was a big project already. I think it could be interesting to take these ideas of shared ownership and the possibilities to have an individual cabin in the boat, to a size which is interesting for Contest the coming years. It must not be shared boats that you often see with the little boats. There are some tries with especially little motorboats. There is also from time to time, with for example, smaller sailing yachts [bente 24]. Some people that do boat sharing with this boat, but they you get what is there. It is not individual. I think it could be an interesting thought: what is in between there. At the size that you are still individual, and not running with big ships. That would be interesting for the size of Contest.

Robert:
Now we are talking with Johan and a few weeks ago we talked with Gillian. If I look at the 49 & 50 ft right now. Let's say we have a moodbook for the interior. Then you can choose a setting. How do you want the interior to look like. Right now, we are working with patted panels. The majority exists of just panels with fabric around it. Depending on

the option you choose your interior. That might be something which you can also think of. Because if those items can be easily swapped. You can make the boat also more personalized. That is something we are doing already right now. We could do more with that.

Johan:
Yes, but that will also work here. For houses. House brokers use companies that assist them in fully decorating the houses. They have an empty house which they can sell easier when the interior is in there. These companies have warehouses which is full of furniture and art. They decorate the house and when it is sold, they take everything out.

Robert:
They really do this. I have also seen that such companies have the furniture as just boxes. When they are done, they can fold them back up. It just has a bit of fabrics around it. We don't want to use boxes. Perhaps more like the Pura concept [huisman sailing yacht]. This must be a very interesting idea.

Johan:
That was a bit of the production boat. With the hull it becomes a bit questionable. I guess they had a good concept. With good technical and layout idea. They promote this to be able to build at a better price.

Joost:
The idea of shared ownership is something you would consider for this project? Shared ownership with a part personalization or private ownership? It that correct. I understand that Contest isn't going to build a cruise ship.

Robert:
It is not something we are doing right now. Ten years ago, shared ownership didn't exist. Right now, it is there, and it is likely to only get bigger. For instance, with the lease cars. You could only get those from your company but now there is also private lease. People want to have something new, but they don't want to pay the full price. Probably it is something we will be doing this at well. You might tell us how that might be in 2040.

Johan:
Also, the timeframe to get the boat.

Joost:
Perhaps you say we are a premium product, and we only want to enable private ownership. I think it [shared ownership] is a nice direction because you can also get a bigger market share. Buying a yacht with two families results in half the initial price.

Robert:
This might be an idea to continue with. It might be something the market demands in the timeframe.

I don't anticipate that we [contest] won't be fully focussed on these principles. It is too much in our DNA to build for individual clients. You might also have question for Arjen. I think this is a good topic to discuss with him. He is the chief of the shipyard. I can only share my thoughts. Eventually he is the one to decide where the brand is going. Right now, you are getting more and more an idea about the possibilities. Some of those items should be discussed with him. You can have a look at it. But there will always be, willing to have their own product. That is something we will keep doing and we are also curious what that will look like in the future. That will be a smaller part to explore than the concept of shared ownership.
Perhaps it is also a good idea to have a look on the cruise ship [the world], and interview with people that live on that boat. Their experience and motivation to do so. Because you are searching for people sailing around the globe and work from their boat. You now found a boat with a lot of people doing it.

Joost:
How do you see things changing, mostly on behavioural changes. And how technology makes this possible. For instance, do you also see the autarkic ideals?

Johan:
Actually, the clients are not relying on people. Buyers of sailing boats enjoy their freedom and can do what they want. Will the group of people grow? We saw during the COVID times that people had this wish. We have seen on the whole marine market that a lot of boats were sold. The second-hand market was empty for a while. I think the wish generally will grow.

Joost:
What kind of technologies you see happening that support this behaviour?

Johan:
Digitalism plays a big role in this. Everything should be integrated. I think this is mainly the IT part. Also, to have service. To have companies that take care of all the systems aboard on a remote base. To have accessibility on the main info on your yacht on your phone. To integrate this in a central system, that is something on. It will become only bigger following years.
Producing your own electricity. Everybody would like to have it. But people rarely stay off the land for weeks. They often go into port once in a while. This is for certain type of boats. We are looking into hydrogen generation, wind generators and solar cells. Getting a good part of the energy from the boat. There is no main reason to do this, as most boats go into port on a regular base.

Joost:
Something we also discussed with Gillian. She

said there has been a huge leap into how well we are able to design sailing yachts. You are most probably one of those companies.

Johan:
Actually no. We have seen in the last years that the types of motorboats have been growing a lot faster than the sailing branch. With the whole discussion about sustainability and CO2 neutrality, on the paper. There is a lot of discussion again on sailing yachts. The true growth on the industry of pleasure yachting is on the motorboats. We try to get the trend right now to get more attraction on sailing boats. We have to sell a lot of these boats right now, before the motorboat industry is having a good alternative like hydrogen.
The biggest advantage of sailing is that it is much more fun. It is completely different use. You use the time on the water differently. When you have a sailing boat it is more than going from A to B. You enjoy the time; it is a hobby. The motorboat is more transportation than a sailing boat. I know a lot of the clients on the motorboats enjoy their traveling, but they go from A to B. Not in circles. It is fun on a motor yacht, but not for a longer period. The majority is using the boat to go to the next island. On sailing boats, you have more people going out on a sail and then come back to the same harbour. I think this use is totally different.
The change in yachts the last years, was mainly to create larger interiors. Taking a bit of the sailing performance off. We have seen that in the big yachts from Beneteau and Hanse. We got also more comfort and systems. It is more of a type of house on the water. The demand for comfort will keep rising. Lofts on the water.

Joost:
Since COVID, people wanted to be more out in nature and be released from their surroundings.

Johan:
I think they go out to nature with only few releases from comfort. Taking everything if possible.

Joost:
Are there any other demands increasing or decreasing? For instance, of the amount of screens.

Johan:
The majority of the boats go for mobile solutions. Wi-Fi on the boat, central processor, which can be connected to all remote screens. This is more moveable. The screen on the wall becomes less of a topic. The branch of catamarans has a good increase. Right now, also on sailing yachts, we are talking about square meters. You also see the increase in interior size.

Joost:
Perhaps we are looking for more comfort and we also want more technology, but the technology should be less visible.

Johan:
It should be more or less mobile accessible everywhere.

Robert:
That might be also a thing towards the future, that forces us as a shipyard to go for an electric propulsion system. That might be easier to install below the floor level. Resulting in more space for the owner. If you look at electric cars for example: those concepts are base plates with four wheels. That's the battery and the drive train and the body fits on top which is flexible. With an ICE you always have a standard drivetrain which allows for only a certain layout. [GM skateboard example].

Also seen that in other companies, like VW. You see that the drivetrain is shared between different brands.

Johan:
The boats have to be easy. That you don't have to do too many things to get on the water. Not preparing 25 minutes before being able to leave. The trend around push button is also increasing.

Joost:
I had a look at Contest, they are also working on better assembly. By having an empty hull that contains all the systems and simply load in the interior. Is something that is also coming up.

Robert:
Yes, for sure. We are working on that. That is a demand from us. To be able to produce faster and cheaper. But you can also use that towards the thing you are busy with. To be more flexible in the interior.

Johan:
These things [concept and assembly] are going in the same direction.

Joost:
It will be the question how to balance this flexibility. From my knowledge modular is not the most efficient solution. The performance will decline when more modular parts are implemented. Where is the trade off?

Johan:
That is true. On the one hand from a certain number produced units, it makes sense in different ways. Perhaps to attract many people with less effort to generate the product. Then you can offer different pricing and attract more people. With this lower price you can also explain a loss of performance. The ratio between what you get and what you pay is right again. I think there are a lot of commercial reasons coming in.

Joost:
Is becoming cheaper something Contest is willing to do?

Johan:
I think so. In the end on this luxury product, you need a price that you can explain to the market and the client.

Robert:
There are coming more competitors. Hanse is now also building bigger boats then before. Now they are becoming kind of a competitor. They are also building boats in the same length. You are getting competition from that part of the market. Other shipyards are also working on smarter ways to produce cheaper. You can have a lot of money, but eventually you can spend a certain amount. If the customer has a wish list and it can save them lots of money to buy another brand which covers their wishes. Then why spent the extra money? We still want to build cheaper, also to gain more margin on the boats. But if we can produce cheaper, then we can also more. The boats can be sold for a lower price, and you get more demand. That makes it easier for us to sell the boat as it is. A standard boat with a standard option list, instead of the semi-custom. Installing the things that a specific customer would like to have. We don't want to do that anymore. You can earn a lot of money on those custom wishes, but it is also a big trap. It disturbs your production process. You want all the processes between the boats to be the same. If we can build a bit cheaper, then it will become easier to sell the boat as is. For us the most important thing to do, is to build a boat that is correct. If everything is correct and fits together then there is not so much reason to search for a custom wish. That is something we see right now. The wishes are the items which are not covered for 100%.

Joost:
You still want to have this feeling of luxury and personalization. But you [Contest] want it to be in an organized way. That there is nothing in your process you have to change. Only the materials for example.

Robert:
We want people to feel like they have all the choices they want, but they should choose within the predefined items from us. Therefore J/V has input, Gillian has input and for specific technical things we have the input. You can change the fabric, or the materials on deck [mostly CMF]. We want to have more control over the production process.

For the rest of the project, keep in mind the brand Contest. You can predict a future which you are right in. But if it doesn't fit our brand, it might be not relevant to us.

Appendix 04. Factors

Demographic

Countries are benefitting, on multiple levels, from the increasing level of education of their citizens. (Trend) (Baum, 2013)

In the not-so-distant future, digital natives are the target group to buy yachts. (State) (Nefzi, 2021)

Millennials are the data driven generation. (State) (Landrum, 2017)

Millennials are willing to share private details online. (State) (Landrum, 2017)

"Millennials were excited by the idea of traveling the world while still employed." (Development) (Choudhury, 2021)

More than 200 million people might have to give up their homes due to climate change by 2050. (Trend) (Myers, 2002)

Polarisation of lifestyles in terms of health and wellbeing. (Trend) (Jones et al., 2011)

World population will grow to its maximum (9,73 billion) by 2064. (State) (Vollset et al., 2020)

Economic

Sailing is the most expensive option, to move for free. (Principle) (Grandad)

"We are in the midst of a reorganization of our economy in which the platform owners are seemingly developing power that may be even more formidable than was that of the factory owners in the early industrial revolution." (Development) (Edwards, 2021)

Living in a community isn't free. Financial troubles are the main reason some communities cease to exist. (State) (Howard, 2021)

Some jobs require on site presence, also after COVID. (Principle) (Lund et al., 2021)

The future generation consumers support more local economies in 2040. (Development) (Metzger et al., 2017)

International travel will remain popular in 2040. (Trend) (Metzger et al., 2017)

Economic globalization is irreversible. (State) (Shaquan, 2000)

Crypto currency increasingly adopted and used. (Development) (Xiao et al., 2022)

Employees expect more autonomy considering place and time of working. (Development) (Kahlili, 2022)

"While aquaculture is the fastest growing food sector right now and provides more than half of the marine products widely available to consumers." (Development) (Zogopoulos, 2022)

Millennials are buying more physical books than previous generations. (Development) (Britton, 2017)

Companies are increasingly responsible for end-of-life of their products. (Development) (Faccio et al., 2014)

Preventive healthcare is effective in keeping people healthy for longer. (Principle) (Jusot et al., 2011)

Political

Digital Nomad visa's allow people to stay for an extended period of time in a country whilst working. (Development) (Edwards, 2021)

Companies are expected to take a political stance. (Development) (Swant, 2021)

Having a leader of the pack is in our biology. (Principle) (Small, 2008)

Political polarisation drives people apart. (Trend) (Pew Research Center, 2022)

The rise of cancel culture impedes a nuanced debate. (Development) (Ng, 2020)

Governments and corporations are expanding the production of green electricity from the sea. (Trend) (World Ocean View, 2021)

The blue economy is on the rise. (Development) (European Commission, nd)

"Politics are no longer avoidable for brands." (Development) (Swant, 2021)

Governments are "protecting" their civilians from unhealthy behaviour. (Trend)

Moving away from carbon-based fuel faster due to current conflicts. (Development) (Tollefson, 2022)

Governments are "protecting" their civilians from unhealthy behaviour. (State)

Ecological
The global sea level is rising. (State) (Climate change, 2020)

As a sailor you are relying on the elements. (Principle) (Contest, 2021)

More infectious diseases will show up due to climate change. (Trend) (McMichael, 2015)

Plastic waste is negatively influencing the ocean and its wildlife. (State) (Ritchie, 2018)

Plants reduce stress in people. (Principle) (Dijkstra, 2008)

Europeans are looking for a more sustainable lifestyle in the future. (Trend) (Metzger, 2017)

Being in nature reduces stress. (Principle) (Mayer, 2008)

'Tiredness and sleep are always an issue for solo sailors' (Principle) (Contest, 2021)

Urban water demand will increase with 80% by 2050. (Trend) (Rendell, 2022)

Land is getting dryer and the sea level is rising. (State) (Chattha, 2021)

Marine life has developed an astonishing variety of ingenious forms, functions and survival strategies. (Principle) (World Ocean Review, 2021)

Since Covid, people have an increased interest in nature. (Development) (Tree, 2022)

Social
Being part of a community heightens your happiness. (Principle) (Garcia et al., 2017)

People need a distraction-free environment and have control over everything they are doing. (Principle) (Lopez, 2011)

"Het is goed om te streven naar veel minder afhankelijkheid, maar wie volledige autarkie nastreeft, kiest voor autisme." (State) (Kooke, 2009)

Recently the interest in 'intentional communities' has grown. (Development) (Howard, 2021)

Work from home creates technostress. (State) (Gabr et al., 2021)

People need a different place for different tasks. (Principle) (CGP Grey, 2020)

People need personal space. (Principle) (Barrett, 2021)

Being active allows you to stay 'young' longer. (Principle) (Garcia et al., 2017)

Communities of practice allows for deepening learning, even online. (State) (McDonald, 2016)

Fit in but stand out is a social competence. (Principle) (Kwong, et al., 2018)

People are focussing on individual well-being over collective matters. (Trend) (Steele et al., 2013)

Loneliness is increasingly negatively affecting people. (Trend) (Steele et al., 2013)

Stress and mental well-being decline is becoming increasingly worse. (Trend) (American Psychology Association, 2020)

Having secure private property is a near basic need. (Principle) (Maslow, 1943)

Depression is an epidemic. (State) (Ormel et al., 2020)

Rising Share of U.S. Adults Are Living Without a Spouse or Partner. (Trend) (Fry et al., 2021)

Technologies
Industrial cultured meat allows meat production with less resources and up to 20 times faster than current meat production. (Development) (F.M. Technologies, 2021)

Starlink can connect people to internet anywhere. (Development) (Starlink, n.d.)

Social media remains growing. (Trend) (Dean, 2021)

Digital Detox gets increasingly more attention. (Development) (Mirbabaie et al., 2022)

E-Health can allow for the possibility to track your health digitally and share that with the doctor. (Trend) (Philips, 2019)

VR will allow for digital socializing spaces and digital offices in the near future. (Development) (Marr, 2021)

Sailing yachts will become autonomous. (Development) (An et al., 2021)

Full automation creates dependence. This is problematic when the system fails. (Principle) (Endsley et al., 1999)

The democratisation of airborne transport is taking flight. (Trend) (Kuys, 2021)

Lack of understanding digital environments results in digital refugees rather than digital natives. (State) (Coombes, 2009)

Across industries, about 10% of today's manufacturing processes will be replaced by AM (additive manufacturing red.) by 2030. (Development) (McKinsey Technology Council, n.d.)

"Cybersecurity spending will increase dramatically" (Development) (McKinsey Technology Council, n.d.)

Sharing economy, made possible by tech, is increasing. (Trend) (Machado et al., 2018)

Philosophy
In order to be sustainable, the resources we use should be level with Earths capacity to restock those. (Principle) (Galli et al., 2020)

"Adults don't have any imagination, all they care for is numbers." (State) (De Saint-Exupéry, 2019)

The simpler it is, the less can go wrong. (Principle) (Contest, 2021)

People need harmony with their surroundings. (Principle) (Feng Shui)

Asking the right questions regains importance. (Trend) (Wiss, 2020)

Ocean is the life of our planet. (Principle) (Garcia et al., 2019)

We need to focus on long term happiness and sharing that with people. (Principle) (Epicurus)

"Our time and attention are the two most important things we often take for granted." (Principle) (Light phone, n.d.)

"If you are the ministry of hammer everything is a nail" (Principle) (Maslow, 1966)

Appendix 05.
Validation Transcript J/V

A transcription from the meeting with Johan Siefer from Judel/Vrolijk and Robert Vijselaar from Contest. The goal of this session is to validate the final idea. Some adjustments to the final concept are made after this session. Due to the limited time, only the discussions that followed from the slides are included in this validation. The things that have been changed after this session are indicated in this transcription.

Joost:
This is the layout thus far. To be honest, I think that there is too much shared. Although it is part of my vision statement, I think the shower should be separated.

Johan:
Toilet and shower are mandatory to have private.

Joost
I made the batteries a size, because I am not sure how large they need to be twenty years in the future. Perhaps I made them in the current package a bit too big.

Johan
Hopefully you are right with your expectations on the size. For the current state of technology, this looks like a one-hour drive. I hope in twenty years we are away from that, but it looks like a big step. (The size of the batteries in the final report have been increased to about three times what was shown in the presentation).

Joost
This is the layout; the wet cells are not included in the modules. Robert told me it was important to separate the toilet and the shower, as this could be inconvenient. Because it is separated, each module still has an own faucet.

Robert
It is preferred that the shower and toilet aren't in the same space. However, it is even more preferred that the owner of the boat has his own shower and toilet. (Changed)

Johan
So, I understand that there is this platform which owns the Contest shared ship company. And you have two modules which are owned by the client. From my feeling both of the box owners would like to have their own private wet room.

Robert
One thing I see right now in this picture, and from the cabin. You would like to have straight access to the wet room. If you are naked for example and someone is sitting at the table, it can be awkward. Maybe it is not a problem if the bathrooms get a little bit bigger and the module gets a little bit smaller, to give the bathroom some more space. I see the person on the bed, I think the module is about five meters long. More than half of the module is now desk or space to walk around and relax. This is probably more a place where you sleep and have a desk, you can reduce the space of the module and add it to the shower.

Johan
These are good suggestions. I still think the option to have a private wet room is preferred. If you move the wet rooms to the outboard side, you make more advantage of the space you have. You lose only the space of one corridor in the middle, also have a washing table you use the space which is below the side of the boat which is lower than in the middle. In the current set-up it looks like you have a lot of space, but it is not really there.

Robert
It already saves you 60 [cm] by losing one corridor. The space you show here communicates that there is a lot more space than there is in reality.

Joost
There is still a bit of messing around to do with the wet cells. In the following picture I want to communicate the possibility for totally different people to live right next to each other.

Johan
Are you familiar with the Spirit Ghost 110? It is a yacht which looks like the outrageous module you have drawn. It is nice, you should definitely have a look.

Joost
I will! In the following picture you can see the plants in the front of the yacht. According to Robert there needs to be an airtight space there for safety reasons. I made a small ecosystem in it. The light shines through from above in the front of the cabin leading to a soothing green glow throughout the cabin. (No Reaction from Johan, that sounds like a good thing).

Johan
I think for this visual it is clear to sit like that. I think the next thing is when the person at the far end stops with working and the other person is still working, what then? So maybe they shouldn't sit against each other.

Joost
That is something I was thinking of. On the other hand, when you are sitting in the restaurant on a bench, and someone has to go to the toilet you also have to move. What I can mainly take from this point, make sure it does not take five minutes to set up. If it has a more Star Wars like feeling in which you push a button and can get out than there is no major problem. But if it takes a lot of time and practice to get it working all again then it becomes a problem.

Robert
Can you go back to the top view of layout? Now you have the galley part against the mast and then the table is in front. To have more space around the table, maybe put it more to the mast and the galley than maybe more in front to gain more useable space. But Johan do you know interiors that might be helpful for Joost to make this investigation a little bit easier. I do not know any ship in which the galley is that much forward. Often there is a bed in the foreship.

Johan
That is true. That is often about the movement at seas.

Joost
The reason why it is where it is, is that all the water using appliances are in this central box. There is no need to put water all around the ship.

Robert
That is good thinking. Also, you don't want to have the galley in the furthest part of the yacht. When sailing and catching waves your egg will flip automatically. You can move up and down about a meter with each wave. Cooking more forward is not something you would like to have on a sailing yacht.

Joost
Another reason why the galley is here and the wet rooms are where they are, is because the bulk head of the mast separates these features.

Robert
Ah you separated the boat into boxes to think a little bit thinking about building and stiffness while perhaps that is not really part of the exercise. But even in the future, the boat should be stiff enough to be able to sail.

Joost
I remember you saying that there are a few features which we cannot be changed in future yachts. The mast will always be there. So, I tried to take a few of the features that are necessary and keep those in the final design.
A thing I myself saw as a problem of the location of the galley was that the orientation results in everything falling over when the ship heels over. (Changed)

Robert
Nowadays we apply the stove for sailing yacht, they are always made for a galley that is turned a quarter in the length of the ship. When you are heeling that your pans will stay more or less straight. I have never seen a module that can be fitted in this position. It will be a fixed one.

Joost
I will have a look into rearranging the part.

Robert
It is nice to see that you included the idea that all the water faucets have to be close to each other. But it wouldn't be a problem to put these a little more to the outside.

Joost
For the exterior, Robert told me that it did not look like a Contest. Therefore, I implemented the lining from the current 55.

Johan
Where are your module boundaries?

Joost
Where the pillar comes down is where the barrier between the shared space and the personal module is. It is also the cutting line for the personal terrace. Robert, do you think it is better than before.

Robert
It is better than before. But if I look from the eye of the customer, I think the main feature to recognise a Contest of is what we call the sunglass. The upstanding window from the saloon of the interior. This is completely another deck; therefore it is difficult to recognise it as a Contest. The lines you included are in the right direction, but only the people that see it will know about it. Maybe you can also do it with other features. On the new boats we also have the cockpit seats. These are Contest designs behind the steering wheels. That can also help. For table you can also use something that comes out of the floor. These are probably details that you are not getting into any further. Gillian also said it is not a problem if something has two features, but not more.

Joost
What I found hard during this project is that in my studies I have always worked with small products. Suddenly I have a space which is 3x5. It is hard to imagine how much space there is really there.

Johan
Actually, when you put benches in, a table and the main sheet system and the steering wheel you will see more or less how small it actually is.

[end of presentation]

I think the basic idea is really interesting. It is a bit difficult to see how the market works especially what finally the costs are to build such a module and rent the whole infrastructure. If this something that could work from the commercial side at the end.

The idea is interesting, for sure on the exterior design, there are things to do. It is also a matter of your thesis. You have to decide how much further you can go into that. On the layout I think it would be good you make some changes. It would be interesting to follow this route further.

Robert
Basically, now you have something in the future that we should think about. Is there really a business for this. Assuming that there is, then you made a proposal which is under development for the interior and the exterior. How can you use a boat in the future with the wishes that are there, in the moment, probably. More or less where we came to right now.

Let's say that in the design and the layout there are some challenges. Let's say we need to build this yacht next year, we need to have some good discussions with Johan, Gillian and all the departments. Your thesis is about the vision for 2040. We must not be limited by the rules that are here right now, and the limitations that we think of. Then we will never make progress. I think what you came up with is something that is not impossible although there are many challenges. I already looked at the interior a few times, and we changed a lot, but I still see things to change. That will remain.

I already showed a few pictures, sneak peeks, to the people here.

Johan
One small last question, in one of the pictures the position of the mast is off. (Changed)

Start Folding!