

Katharina Wohlleben

# YAWN

one night in nature



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YAWN: one night in nature  
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## ABSTRACT

This project got inspired by Alastair Humphreys' book "Microadventures. Micro adventures are small escapes from daily life which should be "short, simple, close to the home and cheap" as Humphreys writes. For me, the epitome of micro-adventures is staying one night out in nature - an activity that shouldn't afford a lot of gear, knowledge, money, or time and should be accessible for everyone.

Focusing on sleeping outdoors, the general research includes the history of camping, and wild camping today as well as market research of today's camping gear, materials, and aesthetics of outdoor equipment.

A main finding of the research was that today's outdoor community can be exclusive due to their social media presence but also due to the high price of outdoor products and the aesthetics of outdoor gear. This might hold especially people back who never tried sleeping outdoors before.

Focusing on the target group of beginners and intermediate campers, the aim was to create a product that symbolizes the last push for people to finally go on a micro adventure. The product should help to stay overnight in nature a well-working experience. The result is a bundle that contains a hammock, a tarp and a woolen blanket. The products are less technical than common outdoor products and easy to set up which makes them especially suitable for beginners. The colorful design questions nowadays aesthetic standards of outdoor products and brings playfulness into a world of functionality. The products are integrated into a renting system which makes an overnight stay in nature accessible to more people.

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## PREAMBLE

For this project, I decided already, in the beginning, to focus on camping in the recreational sense. Therefore, I excluded the topic of homelessness and refugees. Nevertheless, I am aware that those are pressing and important issues.

For my research on the history of camping, I found much material about the North-American history, but unfortunately, not much about the European history of camping. As North America is one of the biggest producers of camping gear, I still think this is representative and partly transferable to Northern Europe. Anyhow, this needs to be taken into account by the reader.

To get a complete overview, I looked into camping in general in my research which also included camping like on campsites. In my work, I focused on off-grid camping. Off-grid camping describes sleeping in nature without external support like electricity, water or sanitary facilities.

# intro duc tion



## MOTIVATION

With an average amount of 40 years working with a 40-hours work week, we spend one third of our lives working, often indoors. Only a weekend in between, dedicated to household, hobbies and socializing, people waiting the whole year for their summer vacation. Finally, they can escape from their daily life for some weeks, just to come back and finding themselves in the same rat race as before.

For myself, I want to create a life from which I don't want to escape a few weeks every year. When looking onto life in the big picture, it will not be the days that we spend in the office we will remember, but the days, when we did something different. It's the little trips and adventures that are the memorable days, when we're really presents.

When moving to Sweden two years ago, I started spending time in nature a lot: hiking, cycling and also camping. These activities in nature help me to keep balance with work and studies. They nurture my everyday life, like a more sustainable escape.

The main inspiration for this project comes from Alastair Humphreys and his book "Microadventures". The term micro adventures describes a form of outdoor activity that takes the spirit of a big adventures and squeeze it into a day or only a few hours. Humphreys talks to "normal people with real lives" (<https://alastairhumphreys.com/how-i-built-a-community/>) and tries, with simple activities, to lower the barrier to get started with living a more adventurous life. Micro adventures are "close to your home, cheap, short, simple". Humphreys has a realistic approach as the micro adventures fit in a normal everyday life and don't afford a lot of equipment. They involve cycling a street that you never took before, hiking to the next mountain and having dinner on the top, jumping in a lake and sleeping a night outdoors.

On the other side of "cheap, short, simple", is the outdoor field with an enormous amount of products.

Cycling, hiking and camping were once low-barrier entrance activities. They didn't require a lot of specific gear, knowledge or experience. Today, there are is a lot of specific and extreme gear, even for those simpler activities. Originally, those products were mostly made for mountaineering or other extreme conditions. People buy these, often expensive, products due to the good quality and that they are reliable. Then they use the products for those simple activities, being highly over-equipped and by that rise the barrier, not only financially. The often technical gear communicate that a lot of experience or knowledge is needed, which tends to intimidate people who are not part of the outdoor community. All this brings an exclusive approach to the outdoors. But shouldn't nature be for everyone?

Therefore, I want to explore how people might implement micro adventures in their daily life by making it affordable and easy. I want to focus on people who are motivated to go on micro adventures, but don't do it because they got the impression that they need to have expensive gear, experience and knowledge.

Within my project I want to show that not a lot of gear is required for those activities. And that the gear which is needed, needs to be easy to understand and affordable. If the outdoor community today is so exclusive and elitist, maybe then we need to create a new community which has a lower entrance barrier.

For me, the epitome of micro adventures is staying overnight out in nature. Waking up in the morning to the quiet, all by yourself gives me the feeling of solitude, simple life and freedom. One night in nature, does not require a lot of special gear, knowledge, money or time and it should be easy to implement in the daily life.





**research**





Fig. 1: Two people in their sleeping bags.

## MICRO ADVENTURES

The Cambridge Dictionary defines adventure as "an unusual, exciting, and possibly dangerous activity, such as a trip or experience, or the excitement produced by such activities" (Cambridge Dictionary, n.d.). This quite wide definition already implies that adventures might have different meanings to different people, depending on their experiences. Often adventures include doing something for the first time and stepping out of the comfort zone. An adventure includes embracing uncertainty by experiencing something unexpected, something where one has no or little experience. By removing the predictable it is possible to see things in a new way. With a broad definition like this, adventures could be anything and could be found everywhere.

In the outdoor context, adventures equals often big expeditions, such as crossing countries by cycling or hiking, climbing mountains, and similar - activities that afford experience, a specific physical condition and gear. A lot of people dream of going on a big adventure someday, but the barrier seems so high that they don't even get started. Aware of this, the author and adventurer Alastair Humphreys invented the term micro adventures. By starting small, he wants to break the barriers down and make adventures accessible to everyone. Everyone can experience micro adventures right in front of their door and it does not afford a lot of time. It is about the illusion of getting away, like a micro-holiday. To say it in Alastair Humphreys's words, micro adventures are taking the experience and energy from a big adventure and compressing it in a short amount of time. Humphreys writes in one chapter of his book "Microadventures" about turning around the hours. People don't only have the hours they're working, but also the hours after work till the next morning. He calls them the "16 glorious hours of freedom" (Humphreys 2014, p.32). During this time, people would have the freedom to go outside, sleep in nature and go back to work the next morning with a refreshed mind. The book gives 38 examples of micro adventures which often include staying overnight and sleeping outdoors. Here, it is not about replicating the home, but about "experiencing familiar things in an unfamiliar way" (Humphreys 2014, p.38). He argues for keeping the experience simple. It does not need to afford a lot of gear and it should be inexpensive. Micro adventures are about nurturing the daily life with new experiences and impressions and by that creating an enjoyable everyday life.

## CAMPING - A DEFINITION

Camping is sleeping outdoors with a recreational purpose. This form of recreational vacation can look very different. Camping could be sleeping in a tent just for one night or for several weeks on a backpacking tour. But camping could also mean sleeping in a car, in a trailer, or a van as well as sleeping in a hammock, under a tarp, in a little shelter, or under the bare sky.

The biggest difference between the forms of camping is the location. Being on a campsite with certain services, such as sanitary facilities, common kitchens, and restaurants might provide a completely different experience than camping off-grid. Off-grid camping can be as well in a dedicated place, but without the mentioned facilities of a campsite. Off-grid camping can also mean sleeping in nature, but not in a dedicated camping place, which is often named wild camping.

Camping describes the action to sleep or preparing to sleep outdoors in nature or on a dedicated campsite, away from home. Whilst during camping on a campsite a home away from home is created, wild camping aims for a contrast to the home. Anyhow, recreational camping exists only in the context that there exists an actual home to come back to. The coming home, as Young (2021, p.14) says, is a necessary narrative to make camping fully recreational.

## HISTORY OF CAMPING

Camping is as old as mankind. People always camped. For a long time this was not for a recreational purpose but a way of living or a necessity. Nomadic folks all over the world lived and many of them still live in temporary structures that were easy to tear down and build up elsewhere. Also, vagabonds camped as a way of living.

Soldiers camped "as a matter of necessity and obligation" (Young 2021, p.18). Soldiers were camping to move the troops to the battles. During the North-American Civil War, the US army standardized tents to make the pitching easily repeatable. When staying only for one night, tents were usually not used and soldiers slept under the bare sky or in a simple bivouac shelter (Young 2021, p. 30). Even if soldiers camped as a necessity, they enjoyed sitting by the campfire and socializing. African-Americans in the camps as cooks or servants for white soldiers were excluded from these social gatherings (Young 2021, p.30).

The veteran John Mead Gould (1939-1930) started camping as a leisure activity after the end of the Civil War. He published his camping guide book "How to camp out: Hints for campers and walking" in 1877, only 12 years after the North-American Civil War. With his camping guide, he aimed to make the joy and the knowledge on camping available to new generations. For Gould, sociability was the focus. Sitting around the campfire to socialize and discuss politics was key and reminded him of the evenings in camp as a young soldier. Gould developed a recreational camping style that was "for promoting a sense of equality, individualism and independence" (Young 2021, p.32).

The development of camping as a recreational escape in the late 19th and early 20th century was a reaction to industrialization and urbanization, as the desire to reconnect with nature and to spend more time outside rose. The outdoor magazine "Outing" (est. 1882 in the

USA) became in 1905 one of the fastest growing monthly magazines "with a very white, native-born city dwellers from the upper and middle-class readership" (Young 2021, p. 97).

Camping in the recreational sense was always a white, middle-upper-class activity. In the USA, camping was an antithesis of the nomadic lifestyle of Native Americans. Campers were neglecting the homes of Native Americans as real homes just like they were judging and criminalizing vagabonds and their lifestyle. Even so, recreational campers did just the same, whilst being privileged to camp as a form of vacation.

One of the pioneers of modern camping in Europe was the British tailor Thomas Hiram Holding (1844-1930). In 1908 his book "The campers handbook" was published. The book gave recommendations on which tent to choose, what to pack, what to cook, and how to organize everything (Bunyan, 2019). For one of his bike-camping adventures through the British landscape, he designed a lightweight tent and used a newly invented oiled silk fabric, which was both waterproof and light. He used telescope bamboo poles to erect the tent. Besides that, he designed a down quilt and a small paraffin cooker, which he took with him.

Even though camping was white and middle-upper class, it opened opportunities to experiment in "domestic arrangements, family relations, and gender roles" (Young, p.125). Women changed their clothing to more comfortable and shorter ones to make it more functional. People did not take their house personnel with them and had to take care of the camping house holding themselves.

Camping as a mass-activity

In the mid 1920s more people could afford to own a car, and car camping also became more popular for the middle and lower-upper classes. These campers brought much gear to create a home away from home, which opened up new possibilities for the outdoor industry. They also demanded more infrastructure, "such as good roads, ready-made campgrounds" (Young, p.137). The increase in car camping and more people heading outside also became visible in nature. The mass of people who headed into the wilderness, caused with their cars, boots and tents major damages to the forests, which also led to massive tree dieback.

Moreover, pollution in the woods and streams was caused. As a consequence, Emilio Meinecke (1869-1957), a botanist in the service of the U.S. Forest Service, prompted 1927 a loop campground, which included a dedicated campground, so that the other surrounding could be protected. Campgrounds became more standardized, and campers knew which services they could expect independently of the location. It became an affordable alternative to hotels without the approach to providing a wilderness experience (Young 2021, p.141).

After World War II, spending the family summer vacation on campgrounds became very popular (Young 2021, p.198). With more campgrounds and standardized services and expanded infrastructure, camping became a mass activity. Even though it was much cheaper than other vacation options, people still needed to invest around two to three hundred dollars (Young 2021, p. 200). Furthermore, even then, camping was not accessible for everyone: African Americans and other historically marginalized groups still experienced discrimination, especially on campsites (ibid.) Camping stayed a white, upper-middle class activity and it supported capitalism and conservatism: "outdoor recreation was understood to promote social stability and family solidarity, bolster the consumer economy and demonstrate upward mobility - all of which contributed to the moral campaign against communism" (Young, 2021, p.203).



Fig. 2: Thomas Hiram Holding 1897.



Fig. 3: Camping in the 1950s-1960s.



Fig. 4: Backpackers in the 1970s.



## History of wild camping

Backpacking and backcountry camping became very popular in the 1960s and 1970s and created a new segment in outdoor recreation, especially for younger people (Young, p.218). Not only did campsites become more crowded, but now more people also headed out to experience a more wild form of camping. On the one hand, backcountry camping was a counter-reaction to the conservative campgrounds and on the other hand also a response to the arising environmental movement of the 1960s. The concerns of polluted nature, which was also a consequence of many people camping, created a movement that wanted to preserve and conserve nature how it was.

Paul Petzoldt founded the National Outdoor Leadership School (NOLS) in 1965. NOLS claimed to "enjoy the wilderness without destroying it" (Young, p.220). As more people also went into the wilderness for camping, Petzoldt's idea was to equip everyone going into the wild nature with outdoor skills and environmental awareness to reduce the impact of hikers and campers on nature.

Others wanted to keep the knowledge entirely to themselves and only let a limited amount of people into nature. This attempt promoted an exclusive and elitist approach to camping, even if it was for a reason. The aim was not to attract new outdoor enthusiasts and control access to nature.

Petzoldt saw this attempt only as a temporary solution and stated against it: "[The] real solution is educating ALL wilderness users in techniques of practical conservation so that they can enjoy an area and leave it in a similar state to others" (Petzoldt in Young 2021, p.228). The approach of NOLS was much more inclusive. NOLS wanted to "teach young adults technical outdoor skills but also give them opportunities for leadership experience, personal growth, recreational enjoyment, and environmental awareness" (Young, p.196). Later NOLS educated people as well on how harmful campfires, food packages, soap use, and similar were to the environment (Young 2021, p.228).

Petzoldt's inclusive approach changed a few years later. In 1974, Petzoldt published his book "The New Wilderness Handbook", where he manifested new ethics of the wild outdoors.

He described the problem which arose with more people heading in the wilderness: "fire scars along the lake shore, grasses trampled [...] garbage dumps and piles of human excrement can be found behind bushes and rocks, ready to be washed away into lake and streams" (Petzoldt in Young 2021, p.229). He stated now only to let educated people camp in the wilderness or send them out with an educated leader (Young 2021, p.229)

These "New Ethic of the Wild Outdoors" kicked off a new movement and cumulated later in the pamphlet Leave No Trace Land Ethics, published in 1987 (Young, p.238). A few years later, NOLS and other nonprofit outdoor organizations as well as outdoor manufacturers founded LEAVE NO TRACE Inc. and formulated the following principles:

LEAVE NO TRACE logos could be found an-

Plan ahead and prepare

Travel and camp on durable surfaces

Dispose of waste properly

Leave what you find

Minimize campfire impacts

Respect wildlife

Be considerate to other visitors

ywhere, at campgrounds, sewn into new gear, and it became like a trademark and a certainty to find places that were treated in that sense by visitors before.

Even though the LEAVE NO TRACE movement had good intentions from an environmental point of view, it increased an already elitist and exclusive behavior of a white middle-upper-class group of outdoor enthusiasts.

The LEAVE NO TRACE movement was also one of the driving forces that brought synthetic gear into the outdoors. The idea was to protect nature by not taking material from nature to build camps and similar. What was overseen at this point was that the production of synthetic caused major environmental

issues elsewhere where it was produced - very contradictory.

Another driving force for synthetics was that backpacking and wild camping brought different requirements to outdoor gear as it needed to be more resistant to different weather and lighter. "Synthetics became essential to this 'new ethic of the wild outdoors'" and "they enabled campers to buffer themselves from the elements and rely less on the land itself to provide warmth, shelter or fuel" (Young 2021, p.322).

Lighter and more advanced technical gear was also noticeable in the price. Plus, the tone of the marketing, as well as this specific outdoor scene, for whom LEAVE NO TRACE was the "only proper use of the wild outdoors" (Young, p.240), "contributed" to a "growing social divide in outdoor recreation" (Young, p.239).

Another outcome of the LEAVE NO TRACE movement was brands like Patagonia, founded in 1973. Those brands were not only selling outdoor clothing and gear, but they also stood for the LEAVE NO TRACE. It was used as a statement to agree with the values, like caring for nature and buying less. Wearing a Patagonia jacket also meant representing those values and it started to turn into representing a lifestyle. People also started to wear outdoor brands like Patagonia even if they were not going into nature.



Fig.5 1977 Patagonia commercial

## WILD CAMPING AND THE OUTDOOR COMMUNITY TODAY

Today, wild camping is still an exclusive activity with an elitist and mainly white, middle-upper-class community.

As social media influences many people, especially younger generations, trends can be seen clearly here. Therefore, an observation on social media, especially Instagram, was made. Above all, two groups are present on Instagram: the experts and the bushcraft community.

An investigation into Instagram accounts of the expert community shows high-quality pictures in the extreme outdoors and expensive, professional gear. These people are exceptionally well equipped with specialized equipment and are often sponsored by outdoor companies. They are often mountaineers or athletes.

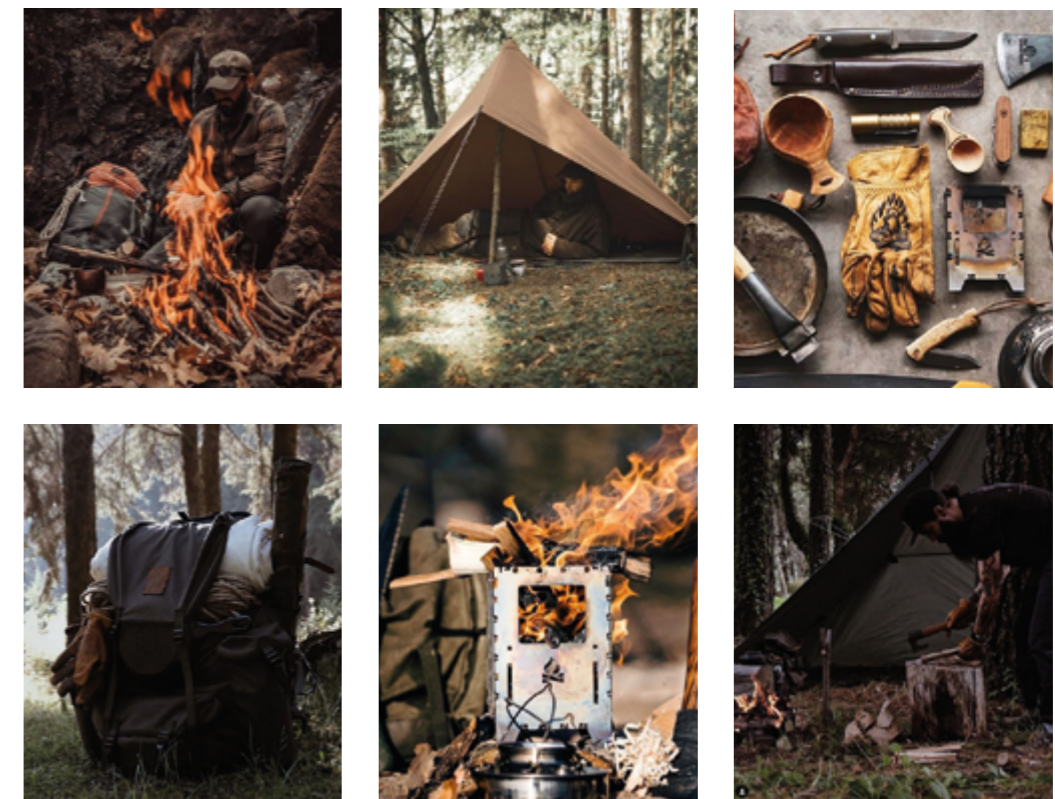
### the experts



LRUD Fig. 6 - Fig. 11: pictures from different Instagram accounts of the expert outdoor community.

### the bushcraft community

Another community that is strongly represented on Instagram is the bushcraft community. Bushcraft is an activity to learn, try and prove abilities, techniques, and crafts that could help to stay in nature for a longer time and survive. These abilities, techniques, and skills are not only anchored in history and tradition but also in other characteristics. Bushcraft especially attracts white, heteronormative men. The bushcraft community is closely connected to the prepper and survival community. Often bushcraft people learn survival skills, make their own gear and go off-grid camping using that. They usually camp in a minimalistic style with only a tarp, hammock, or self-build shelter. Even so, it seems like they are seeking simplicity, there is much specialized gear on the market targeting this group. In contrast to the experts, fewer synthetic materials are used here. Gear is often made out of wood, waxed canvas, or titan and steel.



LRUD Fig. 12 - 17: Pictures from different Instagram accounts of the bushcraft community.

Both groups raise the barrier for people who are not part of the outdoor community. It can be intimidating for them to see people sleeping in landscapes that are hard to reach during extreme weather conditions, using very expensive gear. And so can it be discouraging to see people sleeping on animal skin under the bare sky.

A phenomenon, especially on Instagram, is that only the extremes are often shown, which represents an unrealistic picture. Nevertheless, other Instagram users might take it for reality.

Those photos communicate that a lot of knowledge and experience are needed to be out in nature. This exclusive approach to nature might be one reason that holds people back from trying to sleep outdoors.

The need for a  
new outdoor  
community.

## SLEEPING AND SLEEPING OUTDOORS

Sleep is one of the most important human body states necessary to reset the body and brain. During the state of sleeping, the body goes into "maintenance" mode. The cycle drops, breathing gets more regular, and the blood pressure lowers. During this time, the heart has time to regenerate. Also, for the immune system, sleep is indispensable. The wound healing, growth hormones, and cell regeneration work at full power. The brain goes in "cleaning" and "maintenance" mode during sleep. If people do not sleep enough, the brain gets not "cleaned" properly, and a recent study found out that people who sleep for a longer period less than 6 hours have a 30% higher risk of getting dementia (Spektrum der Wissenschaft, 2022). Sleep also has an important role for memory. When we sleep, we internalize what we learned during the day.

Right before we fall asleep, the body temperature lowers and gives the body the signal to fall asleep (Spektrum der Wissenschaft, 2022). Therefore, a hot water bottle or warm socks can help us fall asleep. It sounds contradictory, but when we use a hot water bottle or warm socks, the blood gets to the body's surface and can cool down faster, helping the body cool down.

The circadian rhythm, a part of our inner body clock, is essential for knowing when to sleep and wake up. Outer circumstances influence the circadian rhythm. Especially for sleeping, the external daylight-darkness cycle is important. The circadian rhythm synchronizes with the daylight. By exposing the body to daylight, the brain signals the body to be awake and alert, whilst darkness starts the production of the hormone melatonin, which helps us fall asleep.

The sleep hormone melatonin plays an important role for the whole rhythm. Melatonin is directly linked to light exposure. When the sun sets, the melatonin production starts and usually peaks when we are already asleep, which helps us stay asleep. When the sun rises, the melatonin production stops, and the body gets the signal to wake up.

Spending most of the day indoors, surrounded by artificial light sources, interferes with our inner body clock. For a healthy rhythm, the body needs to be exposed to daylight for at least 40 minutes per day.

A study from 2013 found out that spending more time outdoors and being exposed to natural light helps the circadian cycle reset. The study participants tended to sleep around 2 hours earlier and woke up better rested, which attributed to the earlier offset of melatonin (Wright, et al. 2013). When sleeping outside, it is not only the daylight exposure that helps us reset the biological clock but also the reduction of artificial light that usually surrounds us till we go to sleep, which helps reset the circadian cycle. Most likely, people use their phones less when sleeping outside and reduce their exposure to blue light after sundown. Moreover, sleeping outside provides the brain with fresh air, which helps a better nighttime sleep and helps the brain to perform better.

Sleeping outdoors has not only positive effects on our body but also on our mental wellbeing. Sleeping outdoors or simply spending time in nature may decrease the stress level. Being in nature helps us to breathe deeply and slowly, "which stimulates the body's parasympathetic response" and "helps us relax by slowing our heart rate and lowering our blood pressure" (Ellis, 2021).



Fig.18: Sleeping under the stars

## SLEEPING OUTDOORS IN OTHER CONTEXTS

### nomads



Fig.19 Saami Lavvu in Norway.

Looking back in time, sleeping outdoors and camping in the non-recreational sense are as old as humanity. Nomadic folks have always slept outdoors: hunter-gatherers like Native Americans, Pastoralists like Sámi, and Peripatetics like Sinti and Roma, only to name a few. Some nomadic folks still exist, living with and in nature. They live in temporary structures, which are easy to build and tear down for the next station. Most of the Nomadic folks use structures and materials they used already historically. Compared to camping gear that is mostly made out of synthetic materials, the materials they use are quite heavy. They use animal skin, fur, canvas, and wooden poles - all natural materials they produce themselves. They transport their belongings primarily by animals, snow scooters, or similar.

### military



Fig. 20: Camping gear in military style.

As described in "History of camping" on p. 17, soldiers camped to move troops. Camping was the necessity to sleep whilst being at war. Often soldiers just slept under the bare sky and used simple equipment. The U.S. military of the 19th century often used fabric sheets to build simple tents. No poles were required, and the sheets were pitched over branches or with ropes, similar to what today is known as tarps.

In today's military gear is still simple and practical. The equipment is made for all kinds of weather conditions and long and excessive use. The gear is simplified to the essentials and therefore has fewer details that could break. This makes military gear extremely sturdy and long-lasting. Especially people who are in the bushcraft and survival community are attracted to that kind of gear. Many camping supplies that target the bushcraft and survival community make gear which looks like military gear but is not made for military use.

### journeymen



Fig. 21: Two journeymen with "Charlottenburger" bundle.

Journeymen years is a tradition from the early medieval era, and in Germany, Switzerland and Austria, this tradition is still ongoing. Journeymen are workers that learned a specific trade or craft. The journeymen years are traditionally three years and one day, when journeymen travel after they finish their education to find work and learn new skills. Within this time, they are not allowed to come closer to their home than 50 kilometers. Traveling is only permitted by walking or hitchhiking; after three weeks at one place, they need to move on. They are not allowed to pay for travel or places to sleep. During this time, they do not own a mobile phone, and they carry their belonging in a bundle. This bundle is the German area called "Charlottenburger". The bundle usually contains clothing, personal belongings, and a sleeping bag.

Sören Luthje, a journeyman I interviewed, told me that sleeping outside is often more a personal choice than a necessity. In German-speaking countries, journeymen are well known and respected, so they are often invited for a sleeping place and a meal.

However, Sören often chose to sleep outdoors. He looked for a dry place, especially from underneath, but that could also protect him from rain when the weather was not stable. Those places could have been a bus stop or some other kind of roof. Some of his journeymen's colleagues carry emergency blankets with them because they afford very little space, are light, and could also protect from rain. A sleeping mat is often not within the luggage as it is bulky and impractical when hitchhiking. His personal choice was a small three-quarters mat and a sheepskin. He often slept on his opened bundle, on his clothes and by that created a mat.



MARKET RESEARCH



To get an overview of what is on the market and how the different possibilities of sleep set-ups look, I did a market research. This research includes sleeping bags and mats, tents, tarps and hammocks. The research explores the Swedish market in different price categories. Within the market research, I also looked into trends and aesthetics of the outdoors.

Fig. 22: Camping gear

## Sleeping bags



There are different sleeping bags for different seasons: Summer sleeping bags, 2-season and 3-season sleeping bags, and winter sleeping bags.

Investigated were 3-season sleeping bags with down and synthetic filling.

Down sleeping bags start around 2700 SEK and have nearly no limit upwards. This model has a comfort temperature of -6 degrees Celsius.

A 3-season sleeping bag with a synthetic filling starts around 1700 SEK but provides only 0 degrees Celsius comfort temperature.

### Down

- lighter and warmer than synthetic
- more durable than synthetic when stored and cared right
- down can be refilled
- loses warming ability when wet
- more expensive than synthetic

### Synthetic

- warms when wet
- cheaper than down
- heavier than down
- less longevity

## Sleeping mats



Fig. 23: Air pad by Mountain equipment



Self-inflating mats of different thicknesses

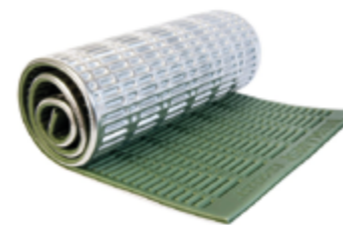


Fig. 24 Closed-cell foam mat

Similar to sleeping bags, there are also different sleeping mat options available on the market.

Mats are not only crucial for comfort, but they are also essential to stay warm. When laying in a sleeping bag, the filling of the sleeping bag gets compressed by the body weight, so it cannot provide warmth. The mat builds a barrier between the person and the ground and prevents from sucking up all warmth from underneath.

### Air pads

Air pads are fully inflatable and often contain insulating or reflective material to keep away the cold from the ground. The air works like a buffer between the cold ground and the person sleeping on it. Air pads are lightweight and compact but also more expensive and sensitive to sharp objects.

### Self-inflating

These mats are a combination of open-cell foam, insulation and air. They are less expensive than air pads, but also bulkier and heavier. Also, here, the air pillow works as a buffer.

### Closed-cell foam

These mats consist of foam with enclosed air pillows. It is the cheapest form of mats, but they are quite bulky.

Tents

Investigated were two-person tents in different price categories.

The cheap tents that can be bought at building stores like Biltema cost around 500 SEK. Most of the time, the cheaper tents have no separate usable inner tent.

A medium price range offers Decathlon. Decathlon has no shops in Sweden but in many other European countries, making it comparable. Decathlon produces affordable gear with medium quality. They offer a trekking tent for circa 900 SEK with a weight of 2600 Gramm. An additional footprint needs to be bought separately for circa 150 SEK. The tent has a five-year guarantee, and Decathlon points out that all their tents are repairable.

The gap to the next price group is pretty high. Marmots Limelight two-person tent weighs only 50 Gramm less than the Decathlon tent but costs 3499 SEK. Decathlon specifies the

used materials only as Polyester, while Marmot uses Ripstop Polyester, a more robust material. The higher price most likely comes with better quality in material and production. Marmot gives a lifelong warranty and repair service.

From here on, there is nearly no price limit upwards. The tents in the expensive category are designed for higher demands than camping in moderate conditions or festival camping. These tents are made for backpacking, hiking, cycling, or expeditions in extreme environments. Therefore, they must withstand heavy weather and be lightweight and long-lasting. Light and high-functional materials add to the price. Furthermore, the tents offer many features, like pockets inside or well worked out systems for packing and so on.

The Big Agnes tent is incredibly lightweight and very intuitive to set up. But as the material is so thin, even though it is qualitative ripstop

nylon, it does not communicate that it will withstand heavy rain or wind, which might be a trust issue.

The other three tents include a pretty big outer area. These tents offer a place to cook, keep stuff dry and be in bad weather during a trip.

Fjällräven, probably the best known outdoor company in Europe, offers a nearly full range of outdoor equipment, also tents. Their tents are good quality and a solid, all-round choice, probably mainly used for several-days hikes.

Hilleberg is an old traditional family-owned company making high-quality tents for over 50 years. Their tents are known for having them for a lifetime. They produce tents for trekking, hiking, and long cycling tours.

Helsport is a small company that produces top-quality tents for extreme conditions. Extreme athletes and mountaineers often use Helsport.



Fig. 25 Biltema Kupertält

549 SEK  
2100 Gramm  
No separate inner tent



Fig. 26 Decathlon Forclaz Trek MT100

ca. 900 SEK  
2600 Gramm  
No separate inner tent



Fig. 27 Marmot Limelight

3499 SEK  
2550 Gramm



Fig. 28 BigAgnes Creek HV UL2

4999 SEK  
1020 Gramm  
Ultralight tent



Fig. 29 Fjällräven Abisko Lite

6999 SEK  
2070 Gramm



Fig. 30 Hilleberg Anjan

8499 SEK  
1700 Gramm



Fig. 31 Helsport Fjellheimen Superlight

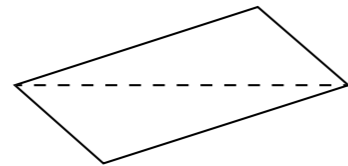
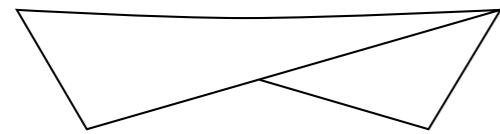
10995 SEK  
1980 Gramm

Tarps

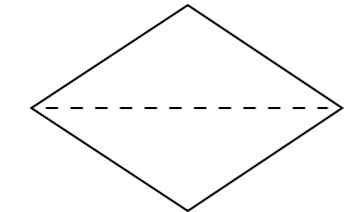
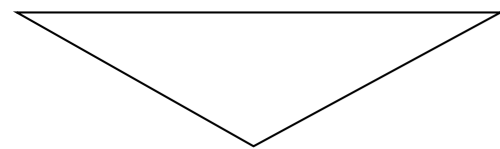
Tarps are fabric sheets that are usually used for minimalistic camping. Their wind- and waterproof materials provide protection from wind, rain, and sunlight. Bushcraft people but as well people who go long-distance hiking or lightweight camping use tarps. Tarps do not need much space and are simple and light. There are a lot of different kinds of tarps. Classic ones are flat, squared or rectangular pieces of fabric with eyelets where strings and tent pins can be attached for pitching the tarp. Some tarps require as well poles to set them up.

The most common tarp designs are: Squared, rectangular, diamond, Hex / Cat Cut, and winter tarps. Additionally, there are a lot of different possibilities for setting up the tarp. The diamond and the rectangular cut give are the most versatile.

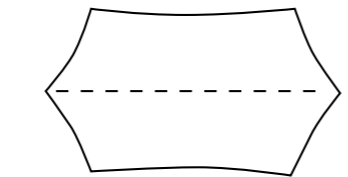
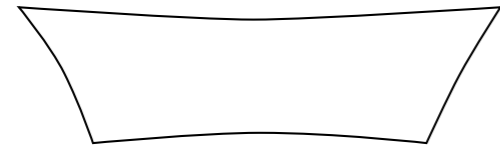
Asymmetric



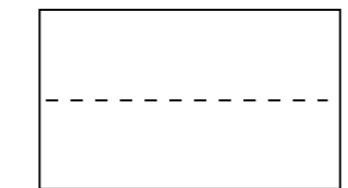
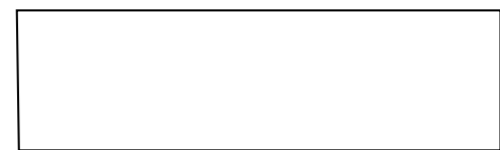
Diamond



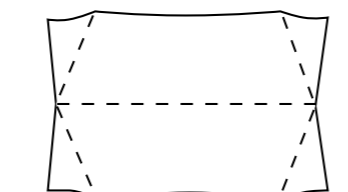
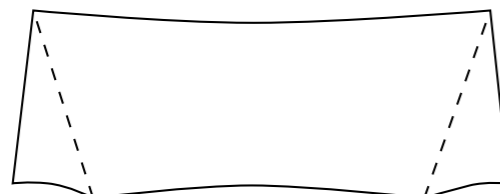
Hex / Cat-Cut



Rectangular



Winter / 4 Season



Ticket To The Moon tarp



Sydvang tarp

I tested two tarps: the ticket to the moon tarp and a tarp from Sydvang. The ticket to the moon tarp is squared and specifically made for hammock camping. The squared shape allows setting up the tarp in many different ways (see description below). It comes with a description and uses different colors in the strings, making pitching easy and intuitive.

The Sydvang tarp has a Hex / Cat-Cut and comes without any description. The more complex form and that the same cord color is used on all sides make the setting up less intuitive and more difficult to pitch.

There are also different price categories for tarps, depending on features like pockets or special fastening techniques, material, and weight. Prices start from around 600 SEK and go up to 5000 SEK.



Ticket To The Moon tarp description

## Hammocks

Hammocks for camping are made out of light-weight materials like parachute silk or nylon. There are different kinds of hammock designs on the market. The most common ones are gathered-end hammocks and bridge hammocks.

The simplest type is a gathered-end hammock (Fig.32). It is made of a rectangular sheet of fabric, where the two short ends are gathered with a string and hung up between two anchor points, often using a carabiner.

The bridge hammock is also a rectangular piece of fabric, but at the ends, spreader bars are used to provide a flatter, tube-like sleeping area (Fig.33).

Moreover, there are special types of hammocks, which use three or four anchor points to set up and provide a flat area to sleep on. These hammocks are more challenging to set up as they need more anchor points at the right distance, which can be hard to find. Plus, they have to be properly tightened, which might be especially tricky for beginners. Other hammock producers added many special functions, making the hammock more like an uplifted tent like the Tentsile (Fig.34).



Fig. 32: Gathered-end hammock



Fig. 33: Bridge hammock



Fig. 34: Tentsile

## TREND: RENTING EQUIPMENT

Many people buy gear and use it a couple of times a year, if at all. For the rest of the year, equipment purchased for much money sits in the storage.

Would it not make more sense to borrow or rent gear instead of owning it? The outdoor market also saw this problem; today, more companies are offering renting solutions.

Renting instead of owning gear would lead to fewer products on the market in general and therefore make an environmental impact. In my opinion, renting is also an attempt to make outdoor activities accessible to more people as less money needs to be invested. Most companies do not reach this aim. When looking at renting prices, renting gear is still quite expensive.

The company Arrive Outdoors from the USA rents out outdoor equipment and whole camping sets. The curated sets with high-quality camping gear offer a package for one or two persons. The one-person set exists out of a sleeping bag, a mat, a backpack, a tent, an outdoor kitchen and a headlamp.

The sleeping bags get cleaned professionally, which might drastically shorten the product's lifetime. Usually, it is recommended to wash a sleeping bag after 40 nights.

A backpacking set for one person costs 54\$ per night.

### Arrive Outdoors

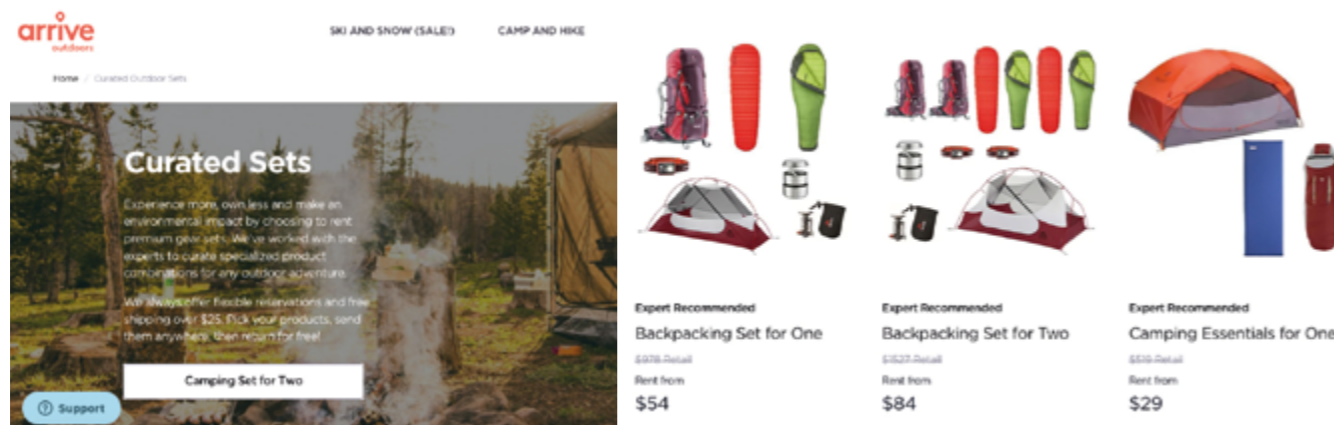


Fig. 35: Arrive Outdoors website

### Outdoor Buddies

A similar company in Sweden, outdoor buddies, offers also sets, but they are not as well curated as at Arrive outdoors. A tent, sleeping bag and mat can be rented for around 800 SEK per night. When camping for a week, buying the gear would already make sense.

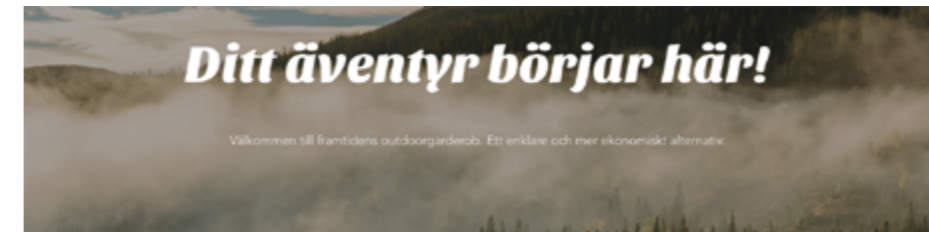


Fig. 36: Outdoor Buddies

### Naturkompaniet

Naturkompaniet offers to rent tents, backpacks and outdoor kitchens. The tents which Naturkompaniet rents out are from Fjällräven and start at 6000 SEK in sale. Renting a tent for one night costs 250 SEK, for a weekend 500 SEK and for a whole week 1000 SEK. If someone owns all the other equipment needed for camping and only goes camping once or twice a year, it makes financially sense.

According to an employee of Naturkompaniet, renting out gear do not bring them much money due to the after care that is afforded.

### Fritidsbanken

At the Swedish organization Fritidsbanken, people can borrow all kinds of sports and outdoor equipment completely for free. Fritidsbanken gets their equipment through donations mostly from private persons and the municipalities partly support them.

## WHY OUTDOOR GEAR IS EXPENSIVE AND WHY PEOPLE BUY IT ANYWAY

The high costs of outdoor gear is one reason why the outdoor community is so exclusive. First of all, cheaper gear exists. In most cases this gear is less qualitative. Cheaper gear is often made for festivals or for a few times camping in "good conditions". Cheaper gear is less lightweight, less functional and less durable due to low quality materials and production.

The price for high-quality outdoor gear is in the most cases reasonable. The gear is made of high-functional and technical materials which are expensive in production. Plus, companies research years to develop new technologies and find innovative solutions which make gear more resistant, durable and lightweight. This gear is developed for extreme conditions: It needs to withstand heavy weather, be light-weight or small packed. People who do mountaineering, go on expedition in extreme environment or backpacking do of course need high-functional gear. But, this gear is not only bought by this target group and therefore often not used for the extreme conditions that it is made for.

People who are going in nature as a beginner or intermediate hiker or camper for day trips or similar, are also the ones who buy this high-functional gear. Customers that want qualitative, durable gear, rather buy high-functional, expensive gear because they know they can expect good quality, lasting for a long time. There is nearly no "in between" the cheap and the expensive, high-quality gear: Gear that is made for the actual use, that is still qualitative. Therefore, a lot of people buy gear, which is not made for the actual use. For example, they are going camping by car, taking a lightweight tent with them. They are buying expensive gear for simple camping or hiking a few times in a year because they do not want to take the risk of having a bad experience.

Buying high-functional gear is not only about the quality. Outdoor gear speaks the language of performance and connote confidence: Gear enables users to do specific

activities in the outdoors. Buying this kind of gear is also about dreaming. People who only go on moderate camping trips buy the light-weight tent, because they are dreaming about going on that big adventure one day.

Outdoor brands also communicate lifestyle values and status symbols. What probably started with Patagonia and similar brands in the 1970s, is still the case today. With a new business philosophy, combining selling outdoor gear with environmental responsibility, Patagonia and similar made costumers believe that they were "purchasing products, not because of slick marketing by profit-hungry companies, but for their underlying values" (Young 2021, p. 234). Patagonia was promoting anti-consumerism by marketing like "don't buy our products if you don't need them", but at the same time they were "building lifestyles through consumer choices" (ibid.), like nicely packed consumerism. „As outdoor gear, and clothing in particular came to have symbolic as well as practical uses, items could signify one's attachment to wilderness without being used for their original purpose. They became an expression of identity".

Patagonia became a streetstyle fashion brand. Patagonia is known for the non-consumerism philosophy, good quality material, fair work. More and more today, buying brands is representing the own values with this.

Why not fill the gap in between with gear that is qualitative but made for the actual purpose? For the scenario of sleeping one night outdoors in moderate weather conditions there is no need for the extreme high-functional, technical and light-weight gear. Making gear that is qualitative and long-lasting but made for its purpose, would mean that there is less need for high-functional and technical materials and innovations that make gear so expensive.



Fig.37: Patagonia advertisement from the Friday, November, 25, 2011 edition of The New York Times.

## AESTHETICS OF OUTDOOR GEAR



Fig. 38: Thermarest sleeping mats



Fig.40: Fjällräven dome tent



Fig.39: Camp light



Fig.41: Trangia storm kitchen



Fig. 27 Marmot Limelight (from p. 36)



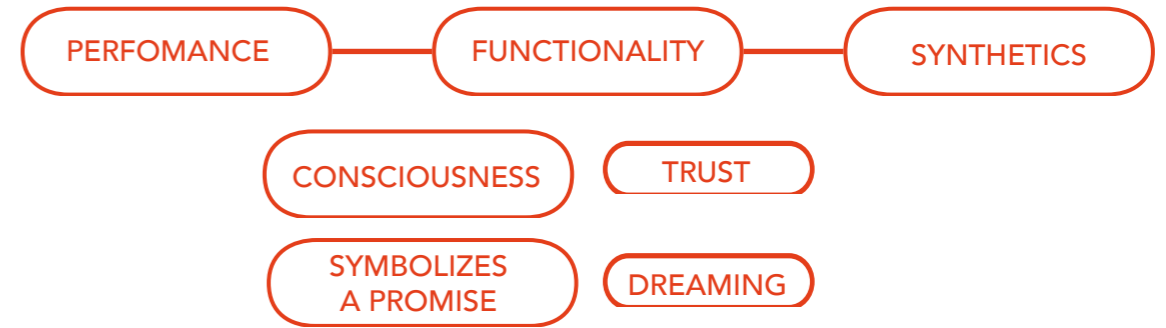
Fig.42: Mountain equipment sleeping bag



Fig.43: Marmot sleeping bag



Fig.44: Mammut sleeping bag



It seems the outdoor industry exists in a parallel design universe. Every selling point goes over the language of performance and functionality, which brings a specific aesthetic with it. As mentioned above in "why outdoor gear is expensive" the technical look connotes confidence. McGuirk describes it as a psychological effect that makes people "want to buy something that makes you feel that you are protected and empowered" (McGuirk, 2010). But the technical look might not only empower people but also intimidate them. The performative, technical appearance communicates that it affords knowledge and experience to go outdoors, which adds to the exclusivity of the outdoor community.

Additional to the functional details on gear, the color schemes used in outdoor gear are outside of other contemporary design directions. Color choices often seem to follow functional reasons. Either using earth and green tones for shelter solutions, to remain undetected by wildlife or other people, or using bright colors for safety reasons to ensure people are found in rescue situations. A lot of outdoor gear is developed from military solutions, and it gives the impression that this gear was just dipped in color, like bright blue, red, orange and green, to make it suitable for outside military activities. This implies that color choices were not part of the design decisions.

Most materials that are nowadays used in the outdoor industry are synthetic. As mentioned in Chapter "History of wild camping", synthetic materials once democratized access to extreme environments (McGuirk, 2010). Synthetic materials prevailed because they

were more lightweight and sturdy than other natural materials which were used before synthetics entered the market.

Synthetics were once used in gear made for traveling long distances or withstanding extreme weather conditions on expeditions. Today, synthetic materials are used everywhere. Synthetic materials give access to extreme climates and make gear more durable, but they also leave traces. Tiny bits of material end up as microplastic in nature by simply being outdoors with the gear or during the cleaning process in the washing machine, which is a big problem.

Moreover, synthetic materials are often "loud". They crackle especially when it comes to synthetic textiles like nylon or polyester. When turning around in a sleeping back, packing together a tent or simply walking in a rain jacket, it is loud. That does not add up with looking for calmness in nature. Walking through the woods, unable to hear the wind and birds because the hiking pants makes a scratching sound. The same gap can be found with the tactility of synthetic materials. Often it feels artificial, not fitting to being used in nature, especially with the point that tiny traces of microplastic are left behind. Of course, synthetic materials made things better and easier working, but the question arises if natural materials would have been a better choice in some products. Of course, synthetic materials made things easier, but the question arises if natural materials would have been a better choice in some products. Bringing natural materials, like wool, to a camping trip builds a contrast to all the synthetic gear. It eases up the aesthetics and adds to cosiness.



## AESTHETICS: DOING IT DIFFERENTLY



Fig.45: TheGetOut tent



Fig.46: TheGetOut enamel ware



Fig.48: Fjällräven collaboration with Specialized

There is a trend in outdoor brands to make products different from what is on the market today.

A very new one is THEGETOUT, founded in the USA in 2020. They design tents and enamel camping products in very simple shapes. Moreover, they use colors that follow contemporary design directions and are less "outdoorsy". They stated, "we just wanted something that wasn't too serious" (Khare 2021). The equipment is made for simple camping and day trips to nature but would also work in the backyard or the home, opening a broader and different target group. The products fill the gap between cheap and too advanced camping gear, which was earlier described in "why outdoor gear is expensive and why people buy it anyway" (p.45). It is for people who are not part of the outdoor community but still want to spend time outdoors, similar to my target group. Anyhow, the tent and equipment are quite expensive and therefore only target

the gap regarding the appearance but not the price.

Also, popular outdoor brands like Fjällräven or Marmot are changing the design language of their existing products or adding completely new product lines. They adjust to new, contemporary color combinations and explore a new, less advanced target group with new product lines.

With this investigation, also the question appears if people still trust gear even if it does not look very technical and performative.



Fig.47: Marmot sleeping bag in new colors

Known outdoor brands will most likely not have these trust problems, but it might be an issue for new brands on the market.

Regarding the materials, there is only a tiny change in introducing more natural materials like wool or recycled materials into the outdoors. This trend also affects mostly outdoor clothing and not gear. For gear, there are still mostly synthetic materials used, looking for example, on outdoor blankets. Many outdoor blankets have come on the market in recent years in new, contemporary designs.

Rumpl is one of them. In collaboration with designer Stefan Sagmeister, they brought an, in outdoor gear, unseen aesthetic on the market (Fig.49). But the aesthetic comes only with the look and not with a change in the materials. Outdoor blankets are all made out of synthetics. The blankets are often promoted with being fire resistant by a special treatment. Wool as a natural material is fire resistant itself. Why is this not an option?

A new aesthetic can not only be reached by applying different colors. A new aesthetic also needs to question common norms, materials and tactility. And, it should talk to a new kind of outdoor community.



Fig.49: Stefan Sagmeisters for Rumpl

## SLEEPING SETUP

At an experiment at the Swedish outdoor equipment reseller Naturkompaniet, I pretended to be new to camping and asked what I would need for a first night outdoors. First of all, they recommended going in the warmer season between April and October, when a winter setup is not required. They suggested either sleeping in one of the many wind shelters that can be found in Sweden or borrowing a tent from them or a friend. Surprisingly, they tried to keep it low-budget and simple so that a beginner would only need to buy a sleeping bag and a mat for around 2000-3000 SEK - still much money. Furthermore, they advised against tarps and hammocks as they were too complicated for a beginner to set up.

The sleeping bag and the mat are the basics that are needed regardless of the setup. The rest depends on preferences and the circumstances, like the length of the trip, weather, and environment.

When choosing a shelter option, it is always a question of how adventurous one wants to be. This question also needs to be put in the context of how much experience one has. Someone who is entirely inexperienced might rather choose something that gives more shelter, like a tent, whilst someone who has already slept outside a couple of times might be eager to try something less enclosed like a tarp.

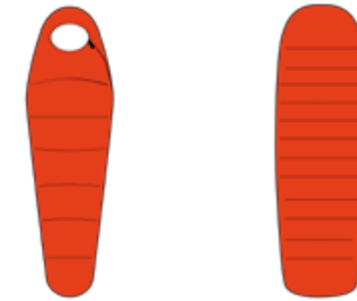
How adventurous do you want to be?

adventure

security

sleeping under the stars   bivy bag   tarp   hammock   wind shelter   tent

sleeping bag + sleeping mat



base

tent



enclosed shelter made out of fabric and poles

- gives security
- affords after-care

wind shelter



wooden shelter, with one or more sides open

- less to carry
- less flexible
- cannot be sure if available

tarp



piece of cloth with various options to build a shelter with strings and/or poles

- closer to nature
- less protection

hammock



piece of cloth attached with strings to two trees which creates a sleeping platform

- closer to nature
- less protection
- knowledge required
- simplicity when knowledge available

bivy bag



wind- and rain-proof bag to put in sleeping bag and mat with often a pole to create some room for the head

- very close to the feeling of sleeping under the stars
- used by experts

## FIELD TRIPS



Car camping



Camping with a tent



Sleeping in a windshelter



Sleeping in a hammock

During, but also before my research, I went out camping in different settings. I tried out sleeping in a car, a tent, a wind shelter and a hammock.

In a tent, I felt well protected from various weather conditions but also animals. On the other side, I didn't appreciate that I could not see if someone would come close to the tent. Plus, a tent always affords much cleaning. Even when sleeping in a tent for one night, and even if the ground is dry, the footprint gets dirty.

During the research phase, I slept in a wind shelter for the first time. The idea is that a tent is not afforded. In reality, it is never sure, if the wind shelter will be free by arrival, which means that a "plan b" is needed. Plus, wind shelters restrict where to go and take away the flexibility. Wild boars came very close to my camp the night in the wind shelter. I started whistling to make myself visible to them, and they disappeared. This made me think about fear and how I could provide security with my product.

Lastly, I also tried out sleeping in a hammock out. When setting up a hammock for the first time, I was impressed by its simplicity. It felt very intuitive and easy. Of course, it depends on trees or poles, but it is also independent of many other factors, like uneven ground and other people. It gives much more flexibility in where you choose your campsite. A hammock's big advantage is that you're lifted from the ground and have an open view. This gave me security and, at the same time, a feeling of freedom. Also, comfort is a factor: There is no hard ground, and I woke up better rested the

following day than after any night in a tent. On one of the camping trips, I also took a woolen blanket with me. Initially, I thought it would probably be the most unnecessary piece to bring on a camping adventure, but it turned out to be the most versatile piece I could bring. I had the blanket around my hips when sitting by the fire, which kept my lower parts warm. I also used it as a mat to provide an additional buffer from the cold ground when sleeping in the wind shelter. In the morning, I used the blanket in the hammock that I brought, which gave me warmth and, most of all, added cosiness and a homey feeling by simply adding a material you would usually find at home. Cosiness was a big factor, as wool, a material so different from all synthetic gear in the outdoors, brought a completely different aesthetic into it.

Each time, I went out only for one night. Even so, I was staying for only one night, I packed a 50-liter backpack, way too much for a micro adventure.

I liked the simplicity and the lightness a hammock set up brought with it. I felt the hammock setup was the most suitable for a micro adventure. The experience with the blanket initiated my discussion about the aesthetics of outdoor gear and the thought of bringing natural materials into the synthetic world of camping. The positive experience with the hammock led me to dig deeper into hammock camping and explore a similar setup whilst working on the disadvantages.

## SITUATION ANALYSIS



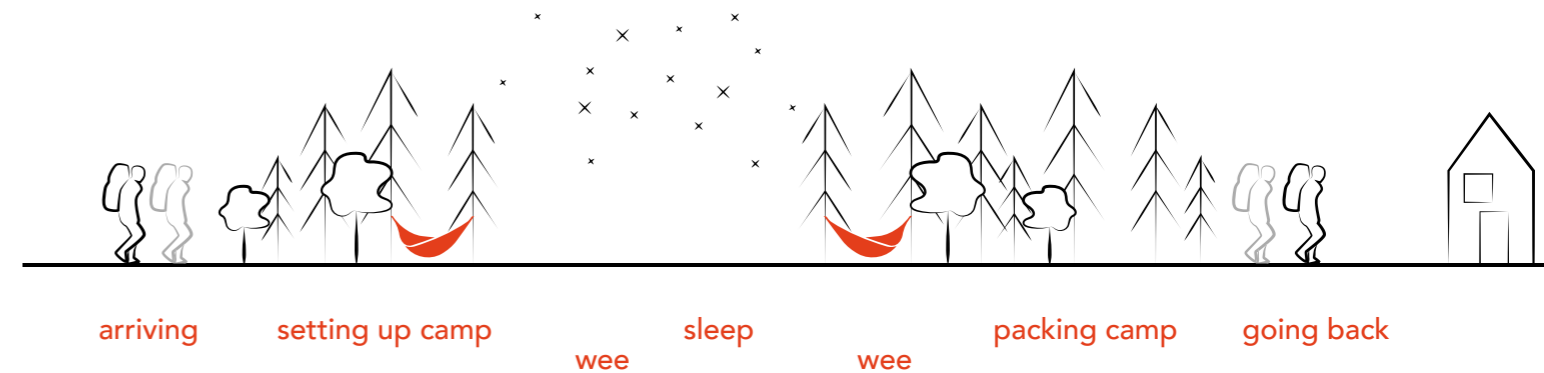
Fig. 50: Micro adventure sleep over

To narrow down my topic, I did a situation analysis to find out essential and optional parts when sleeping outdoors for one night. If staying out only for one night, the essentials are arriving, setting up camp, sleeping, packing camp together, and going back. Another essential is the need to go to the toilet. Optional in the one-night-situation are making a fire, cooking food, making breakfast, and doing activity nature.

I decided to focus on the essential part: sleeping, how to set up camp, and pack it back together.

Alastair Humphreys provides on his website a list of the most essentials for an overnight micro adventure:

- Sleeping bag and mat are required
- Some kind of shelter
- Base layer and woolen hat to stay warm in your sleeping bag
- Flash light
- Water
- Rain jacket
- Matches
- Toothbrush with toothpaste applied



### OPTIONAL

- lighting a fire
- cooking
- coffee + breakfast
- activity in nature

## HAMMOCK CAMPING

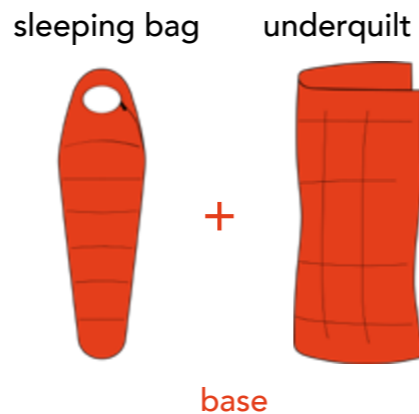
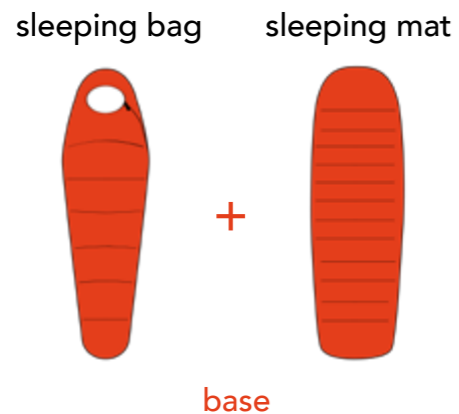
When exploring hammock camping more, it suddenly appeared to be very complex. There are a lot of suggested add-ons to go successfully hammock camping. The hammock often comes with a suspension, but the user must decide on the other add-ons. This procedure might make hammock camping appear advanced, which could hold beginners back from trying.



Fig.51: Hammock with underquilt

Insulation is an issue that does not only appear when sleeping on the ground but also in a hammock. When sleeping in a hammock, usually a sleeping bag is used. When laying in a sleeping bag, the filling material, whether down or synthetic, gets compressed by the body weight. When lying in the hammock, the sleeping bag gets compressed on the underside, and the person in it gets a cold back. There are two options for creating insulation in a hammock—either putting a sleeping mat in the hammock or using an underquilt (explained on p.58).

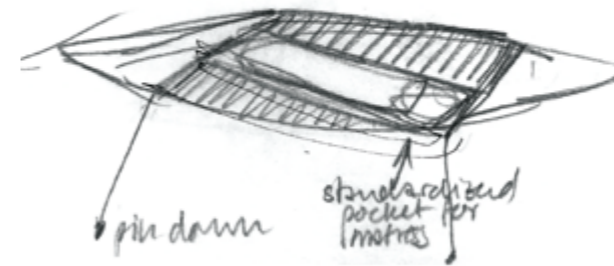
### Issue with hammock camping



What appeared so easy to me, in the beginning seems to be an issue, especially for beginners: setting up the hammock the right way. When using a gathered-end design, the angle of how the hammock hangs is crucial to reaching an ergonomic sleeping position. The angle of the suspension lines should be around 30° to the ground, which can easily be measured using the index finger parallel to the ground and the thumb vertical to the sky.

Moreover, the right distance between the trees is essential to get a good sack in the hammock. The hammock should not be too tense as the fabric needs space to straighten out when someone is lying in it. What is not included in hammocks but is an enormous help to create the right angle and sack is a ridgeline (explained on the next side).

Accompanying with setting up the hammock is the sleeping position itself. Most people would lay in a hammock with the form as the hammock communicates that. Actually, a wider and straighter surface to sleep on is created by lying in a hammock diagonally. There are no hammocks on the market that communicate that. To find that out, a user would need to dig into the topic and research, which makes it unsuitable for beginners. Putting a sleeping mat in a hammock helps create a straighter surface but creates another issue: holding the sleeping mat in place.



Diagonal sleeping position in a hammock

## HAMMOCK CAMPING ADD-ONS

### Suspension

There are two main options to hang a hammock: a cord or a tree sling. The cord is more lightweight but harms the tree's bark more and is less intuitive. The tree sling does not harm the bark as much and is very easy to set up. The sling usually comes with attached loops to click in the carabiner for various positions.

### Ridgeline

The ridgeline is a cord fastened on the two endpoints of a gathered-end hammock (structural ridgeline). The cord guarantees to always have the same distance between the two anchoring points, no matter how far apart or close together the trees stand. The ridgeline guarantees a good sack and makes it easier, especially for beginners, to set up a hammock at the right angle. A ridgeline can be adjustable to make it more suitable for different body types. A general formula for the ridgeline says that the ridgeline should have 83% of the hammock's length. Ridgelines are often made of paracord, a very strong, non-flexible material. The ridgeline can also be used to hang equipment from above; some suppliers offer for that a ridgeline organizer.

### Underquilt

Whether using a sleeping mat or an underquilt is a big discussion in the hammock camping scene. An underquilt is basically a half-cut sleeping bag that is hung under the hammock. The filling material is either down or synthetic fibers, which provides great warmth, especially during colder nights. The biggest disadvantage of underquilts is that they are quite expensive.

### Mosquito nets

Mosquito nets are beneficial when camping in mosquito areas during the warmer seasons. Some hammocks come already with a built-in mosquito net and other suppliers offer nets additionally to the hammock. Some mosquito nets are directly attached to the hammock, so the set-up builds a cocoon to lie in. This might restrict the room, especially if lying in the hammock diagonally. Independent mosquito nets go entirely around the hammock, which limits the room less but means more material and an additional piece to set up the right way.

### Tarp

A tarp is a popular accessory to a hammock. It cuts the wind, which helps stay warm in a hammock and protects from rain and sun. There are specific hammock tarps on the market, but usually, a squared tarp works perfectly with a hammock as it can be set up in a diagonal shape.



## USER RESEARCH

### Participants interviews & questionnaire

As my target group is both newbies and intermediate, I interviewed people from both groups and outdoor pros to get a deep insight. I did not put an age limit on the target group, the people I interviewed, or those who answered the questionnaire.

Most of the participants in the interviews and the questionnaire were 25-36 years old. The participants of the questionnaire were between 18-65 years old.

As the financial barrier is quite high regarding outdoor gear, the aim was also to include people in the target group who do not have much money. Those people can secure their rent and food, but expensive outdoor hobbies are not in their budget. How might we make camping more affordable for them?



Fig.52: Person laying in a sleeping bag

### Interviews

The interviews were split in newbies and intermediate. Through the interviews, I wanted to discover the obstacles for both groups not sleeping outside (more often). Also, to hear personal experiences and what people bring on camping trips, what they like the most about camping or why they think sleeping outdoors is the worst.

The interviews helped me get a first impression but also gave a direction on what I wanted to find out further in the questionnaire.

**“You dont need lot of gear, but having good and the right equipment changes the whole experience.”**

Mark, intermediate

### Findings

For most participants, the social part of going camping is essential. Camping is a social activity for them. Especially newbies prefer to go with people, while intermediates are eager to try camping alone.

For most participants, the tent is the first choice for a shelter. It gives security by being an enclosed space. Hammock camping was for most people outside their comfort zone, but some intermediates were eager to try it.

The most common obstacles of the interview participants were:

- fear - of making mistakes, of animals, of other people
- missing experience and lack of knowledge - where to start, where to go, what to bring
- lack of equipment
- planning: finding a camp spot and packing the equipment

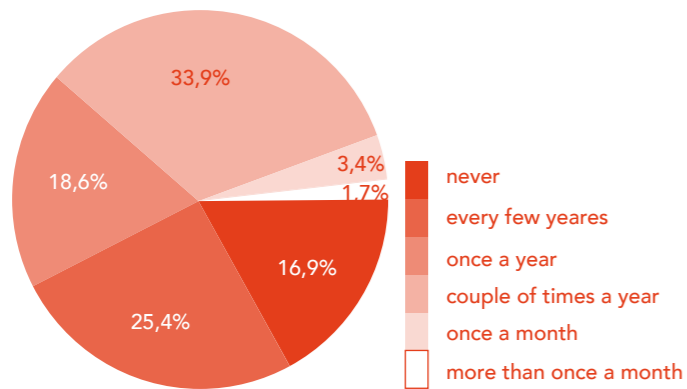
Questionnaire

The interviews already gave a direction for the questionnaire's aim. The questionnaire allowed me to confirm my assumptions of the interviews. The questionnaire mainly focused on the setting in which people prefer to go camping, but it also included questions about renting and borrowing camping gear. Fifty-nine participants answered this questionnaire.

participants' age distribution

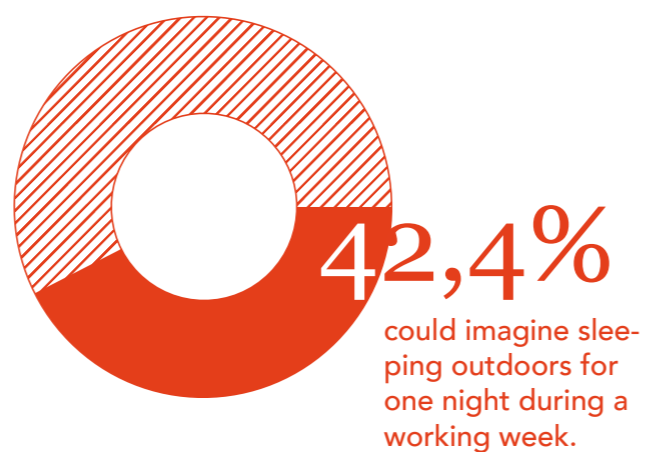
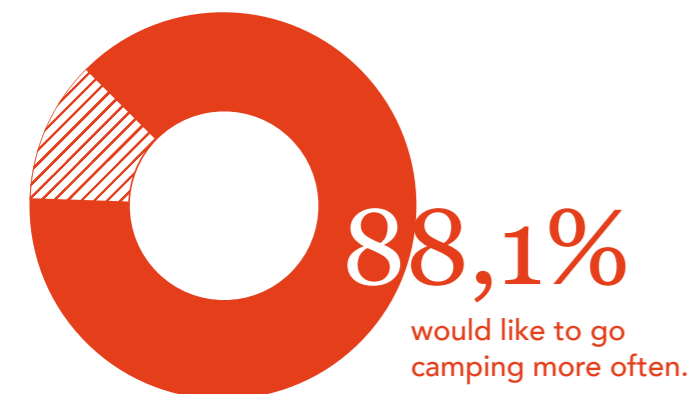


How often people go camping



Most popular obstacles:

- planning / packing
- lack of experience and knowledge
- social contacts not into camping
- lack of gear



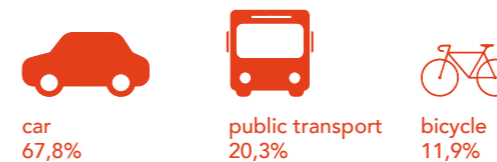
Findings

Among the participants, there is a clear interest in camping more frequently. The obstacles I found in the interviews could be confirmed with the questionnaire.

Most people prefer to go camping during the warmer seasons and like to arrive by public transport or car. This gave a clear insight on what the situation for my concept looks like.

Regarding shelter, many people wish to have both, feeling secured by being enclosed and having a view. There is a general interest in renting gear; some people already borrow or rent gear. People would most likely not like to rent a sleeping bag or other very personal items when it comes to sleeping equipment.

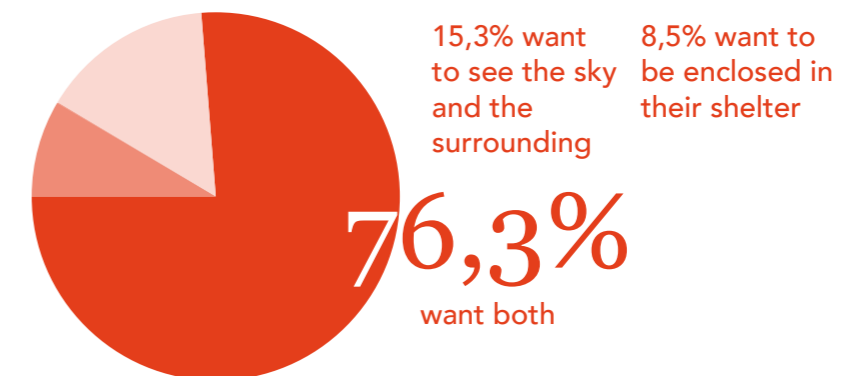
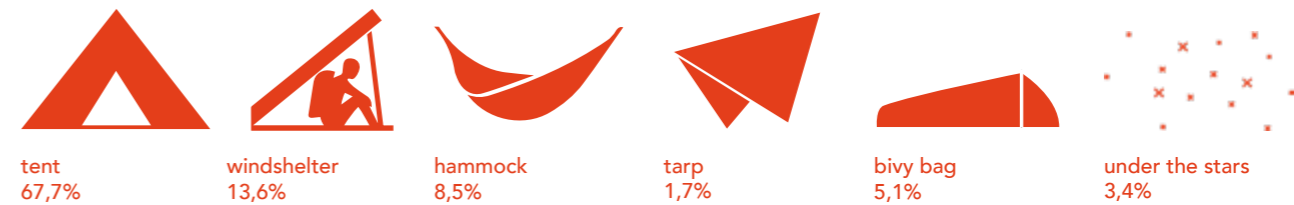
Preferred transport options



Most participants would walk around 5km to the final camping destination.

The majority prefers to go camping in the summer or spring due to mild temperature and better weather forecast.

Preferred shelter





## FINDINGS

### Exclusivity

As the historical overview and the investigation of the outdoor community today have shown, camping has always been, and still is, very white, exclusive and elitist. The high price of qualitative outdoor gear adds to the exclusivity.

### Aesthetics

The aesthetics of outdoor gear add as well to the exclusivity. The products communicate that being outdoor requires knowledge and experience through a high-functional, performative and technical look.

The aesthetics of outdoor gear seem to be in a parallel design universe by speaking only the language of performance and using colors that, of course, have a functional explanation but are not in the contemporary design language.

Bringing natural materials, like wool to a camping trip, contrasts with the mostly used synthetic material of outdoor gear. Bringing a woolen blanket on a camping trip eases the aesthetics and adds to cosiness.

Does outdoor gear need to look like it does today? Do people trust gear if it does not look as technical or could it even invite people to try sleeping outdoors?

### Equipment

A sleeping bag and a mat are the necessities. Additionally to that, there are a lot of different shelter options. The most popular option is the tent which is for sleeping one night outdoors not the right solution due to cleaning, pitching and carrying afford. Other set-ups like a hammock, tarp, bivy bag, or simply sleeping under the stars seem to intimidate newbies, as it seems too advanced and gives less shelter than a tent. My experience showed that setting up a hammock does not need to be complicated. Could a hammock be as easy to set up like a tent? Or does a tent seem to be easier because more people are familiar with it?

Furthermore, the field research showed that a woolen blanket is the most versatile object to bring out in nature. How might we make more use of it?

### Setting

Another finding from the research was that outdoor equipment is stored away most of the time. There is a trend and a general interest in renting gear.

My target group would rather go in good weather conditions and moderate surroundings, so their gear does not need to be made for extreme environments. Most of them arrive by car or public transport, making lightweight or very small packed gear obsolete.

The social factor is important for many people. Newbies prefer to go camping together with people, whilst intermediates are also keen to try going by themselves. But what if people don't have anyone to go camping with?

### Obstacles

- fear of doing it wrong, of animals, of other people
- feeling of lack of experience and knowledge
- feeling of lack of the right equipment
- preparation and planning due to packing, after-care and time
- hammock too complex for beginners

## AIMS

The aims for this project are multi-layered. With the brief in mind, I want to reduce the obstacles of going on a micro adventure and sleeping outdoors. By designing a simple, easy-to-understand product with a less technical aesthetic, newbies could try out sleeping outdoors without being intimidated by complex and expensive gear.

### Simplicity

The design should fill the gap between expensive, high-functional and cheap gear by making a product for the setting and target group I described before. Nevertheless, the product should be of high quality to make it long-lasting. This would make the product as well suitable for a renting system. By making the gear rentable, sleeping outdoors would be affordable for more people, creating a less exclusive kind of outdoor community.

### Renting

Providing more service and a good shelter option will reduce the obstacle of packing and planning. The product is not only equipment for sleeping one night outdoors but provides a memorable experience that people want to repeat.

### Service

For this product, I want to use materials that make sense. This does not exclude synthetic materials in general. Synthetic materials can make products last longer and are in some situations, like bad weather conditions, needed to ensure a good experience.

### Materials that make sense

Natural materials should replace synthetic materials where it makes sense to reduce the use of synthetics and create a more sustainable and environmentally friendly product.

## FUNCTIONS

Offers inclusion  
Gives away knowledge  
Gives away experience  
Sharing  
Affordable  
Questions current norms  
Provides some security  
Easy to understand

Provides shadow  
Protects from rain  
Provides warmth  
Provides comfort  
Provides cosiness  
Protects from mosquitos  
Reduces cleaning effort  
Saves space at home

## CONCLUSION / DECISIONS

Adventure means something different to everyone. Sleeping out in nature will be less of an adventure for someone who does it regularly. For new and intermediate campers, sleeping outdoors will feel adventurous. The less shelter the user has, the more adventurous it might feel. Depending on the person's experience, going out alone might also feel more adventurous.

To provide a shelter that speaks to both newbies and intermediate, I decided to design something that feels adventurous but still gives some kind of security.

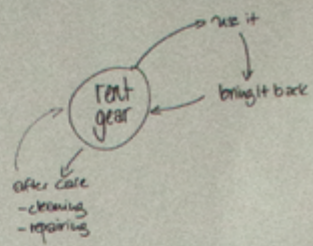
The hammock seemed to be the perfect option. Plus, it inspired me before with its simplicity. But when researching hammock camping, it seemed too complex for newbies, even though it was easy for me to set a hammock up for the first time.

Could I design a hammock that truly keeps its simplicity and by that making it suitable for both groups? What if I take away the issues that hammock camping has today?

As the research has shown that the outdoor community is exclusive, I saw a need to make something for a new kind of outdoor community that is less exclusive. By making gear rentable, more people could afford to sleep outdoors. Plus, the amount of products on the market could be reduced by not owning the equipment.

Along with it, I decided to design a sleeping setup where people use a sleeping bag and a mat. Many people have those two products already at home and I wanted to give them the possibility to use what they already have.

WE NEED A NEW KIND OF OUTDOOR COMMUNITY



### WHAT

to produce the gear the person has to have the gear

to produce the gear the person has to have the gear

### HOW

flexible, cheap, bright, clean

portable

simple

### WHO

people who would like to be in the outdoors

people who would like to be in the outdoors

### WHY

people who would like to be in the outdoors

### FUNCTIONS

- offers inclusion
- gives away knowledge
- gives away experience
- sharing
- affordable
- questions current norms
- providing some security
- easy to understand
- provides shadow
- protects from rain
- provides warmth
- provides comfort
- provides cosiness
- protects from mosquitos
- reduces cleaning
- saves space at home

### New Aesthetics of the Outdoors

### TARP

after-care / cleaning

easy to use

### HAMMOCK

close to nature

simple

friendly to environment

simple

how to make the simplicity of a hammock

how to make the simplicity of a hammock

### BLANKET

real materials

wool

wool

wool

wool

ideation

## MOODBOARD

With the outcome of this project, I want to provide a memorable experience that might connect people. This experience should be an escape that nurtures the daily life on the long run. It's the moment when you wake up in the morning, the sun is just about to rise and the whole world belongs to yourself.



Fig.53



Fig.54



Fig.55



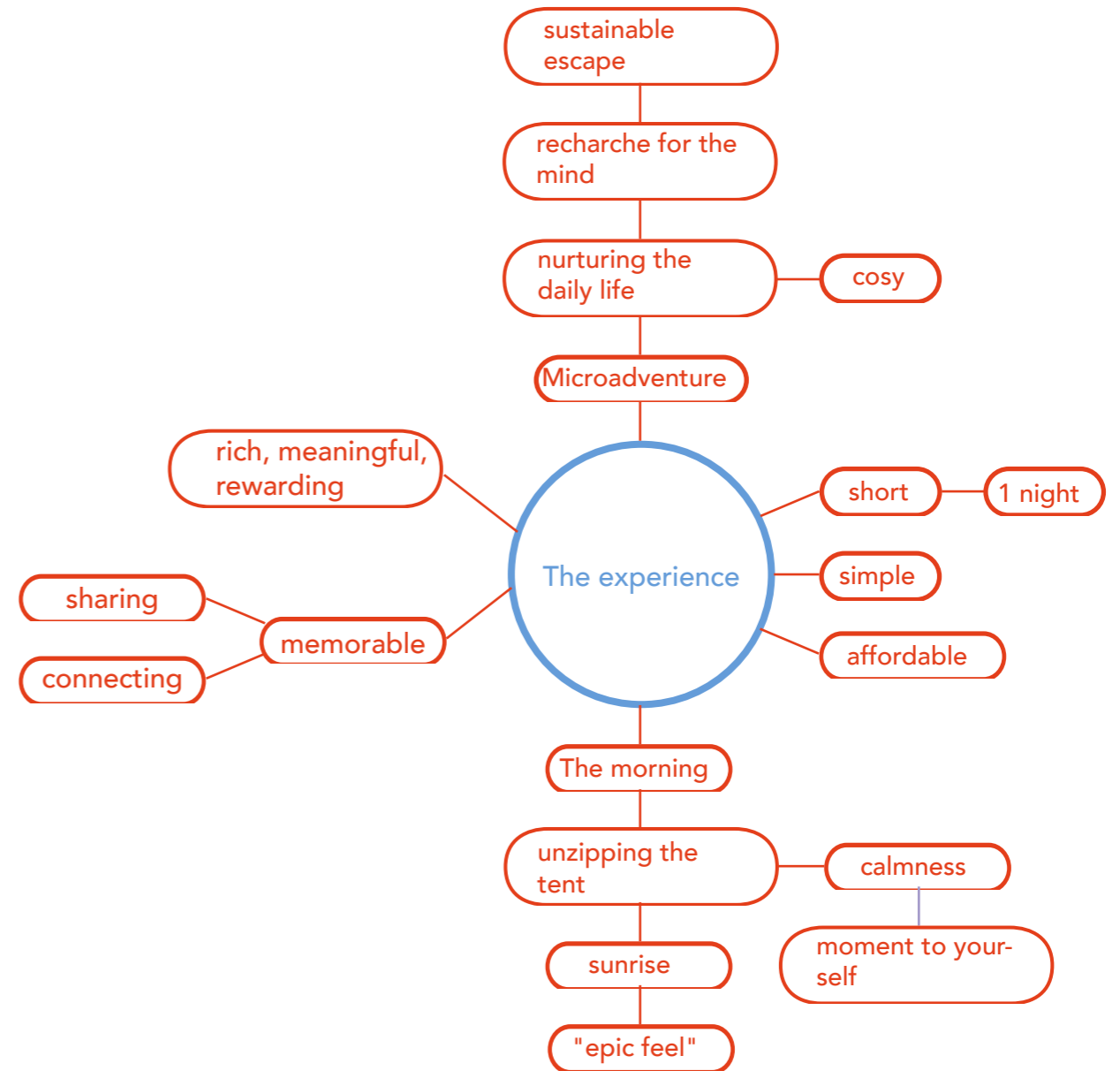
Fig.56



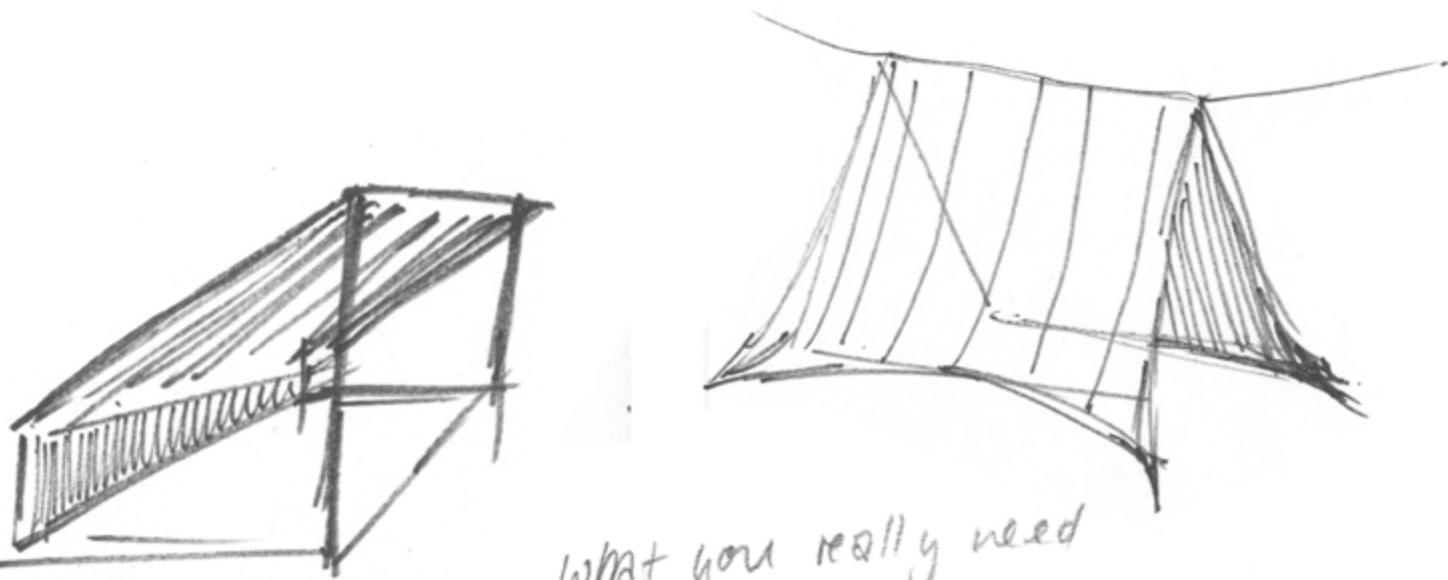
Fig.57



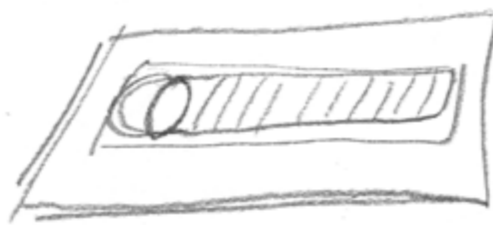
Fig.58



FIRST SKETCHES

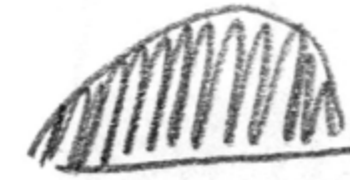
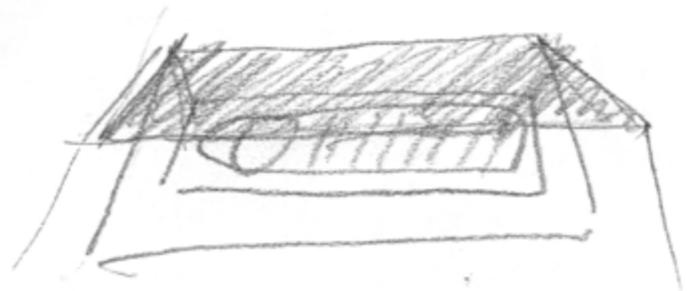
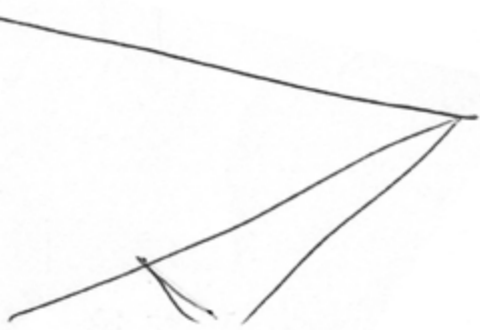


what you really need  
is  
a footprint

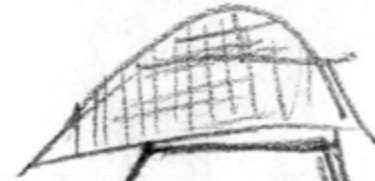


+ a mat  
& a sleeping bag

Something to protect you  
from wind, water or falling branches  
sun



- outer tent

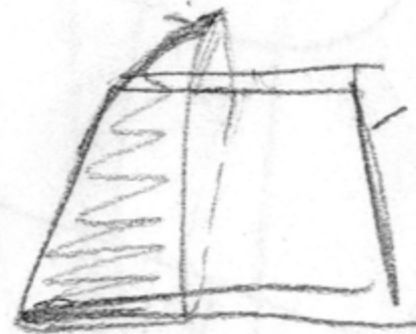


- inner tent

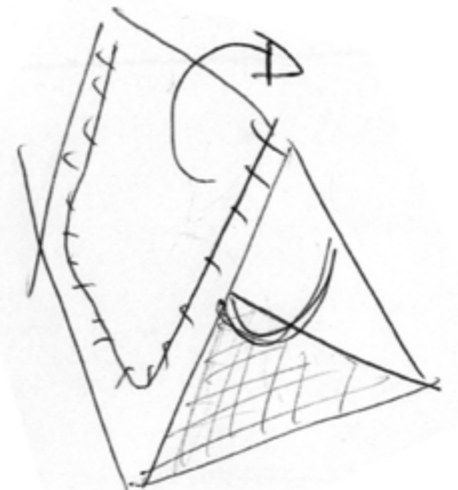
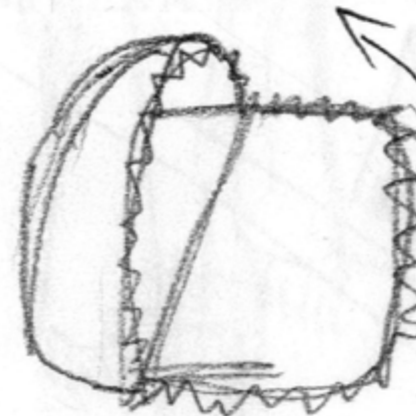
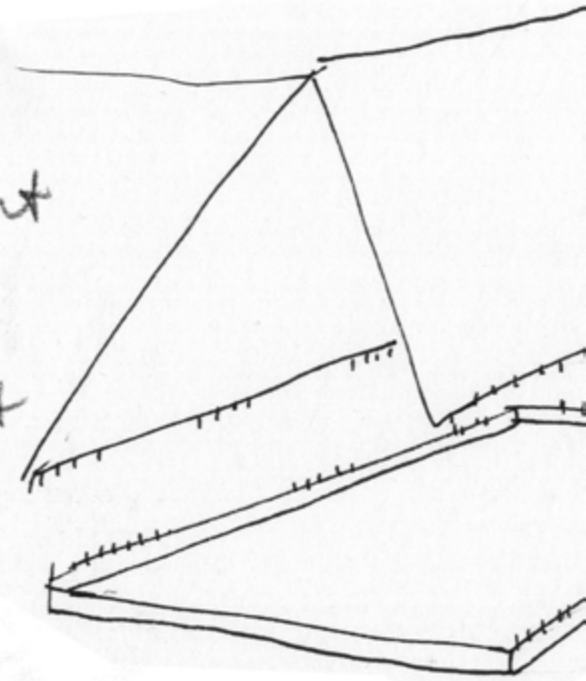


- Footprint

half tent



footprint



## AREAS OF INTEREST

Initially, I thought about various options of shelter, like wind shelters with a booking system or modular tents, which could be adjusted depending on the user's experience.

The research conclusion showed clear fields of interest, so I could focus on these points and discard the ideas before.

As the outcome of the questionnaire showed, my target group was longing for something that would provide both security and a view. The hammock seemed to be able to offer both.

My experience with the hammock and the blanket inspired me a lot. From the beginning, simplicity was a significant point as it fits so well with the spirit of micro adventures. Simplicity also questions how much equipment a one-night adventure needs. Reducing to only necessities would also make it more affordable due to fewer products required. Keeping products simple and easy to understand would make the outdoors less intimidating and more inclusive.

This simplicity is also represented by the woolen blanket. It is such a versatile piece to bring on a sleepover in nature. Plus, it brings a different kind of material into a world full of synthetics.

On the concept level, the thought of a new kind of outdoor community was very important. Going out in nature should not intimidate people or exclude someone. A new type of outdoor community should be less exclusive and inspire people to start going out in nature instead of intimidating them.

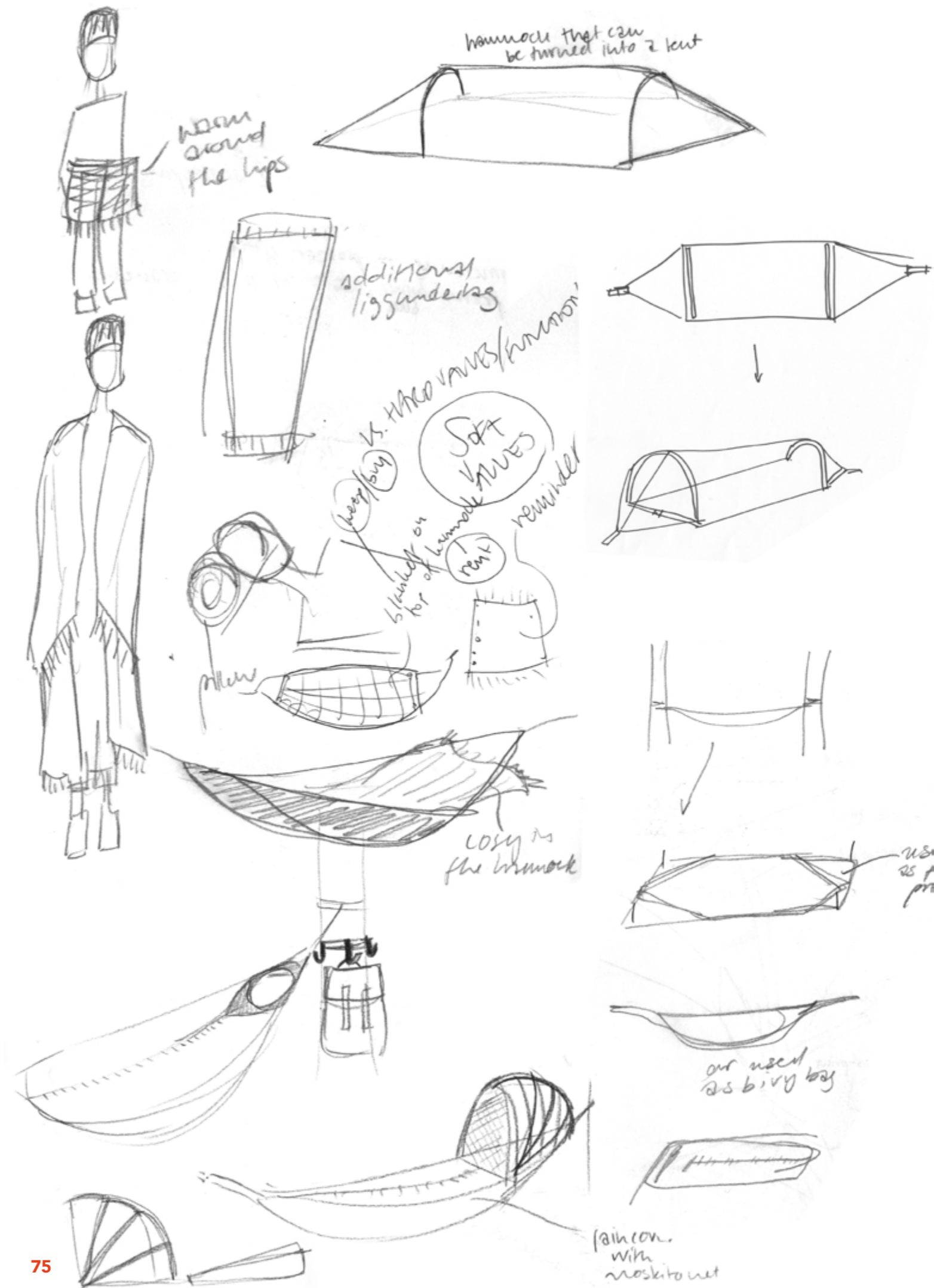
The aesthetics are one part of making the outdoor community exclusive and intimidating. With a new outdoor community also comes a new kind of aesthetics for outdoor equipment. I want to question current standards like the enormous use of synthetics and the language of performance that can be found in every outdoor gear.

Simplicity of the hammock

Blanket

New outdoor community

New aesthetic of the outdoors



### PRODUCT INSPIRATION

As inspiration, I looked for other products that might supply a similar experience in the outdoors as I was aiming for.



Fig. 60: Public wooden hammock



Fig.65: fire resistant camp blanket



Fig. 66: Detail of a Rumpl blanket



Fig. 59: Hammock tent



Fig.67: Bike tarp



Fig.68: Hammock with integrated tarp



Fig. 61: Tentsile tree tent



Fig. 62 - 64: One in all - a tent, a hammock, a tarp



Fig.69: Bivouac tents

## IDEATION HAMMOCK

With the simplicity of the hammock in mind, I started sketching out different solutions which would provide a sleeping area, often lifted in the air.

Many ideas were hammocks with a multi-purpose, like hammocks that could be used both pitched between trees and on the ground by turning it into a tent or using it as a footprint or a bivy bag to not be dependent on trees.

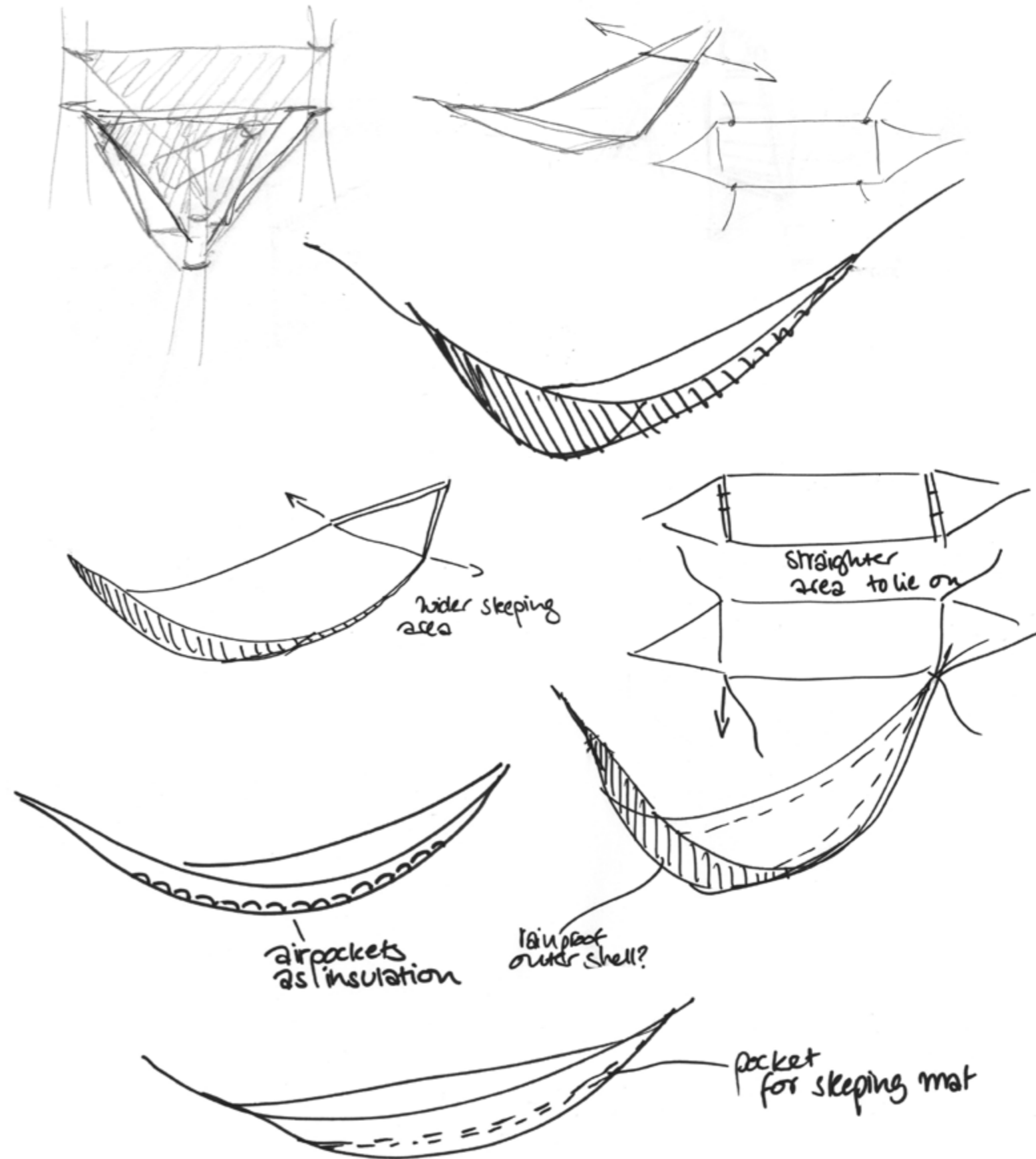
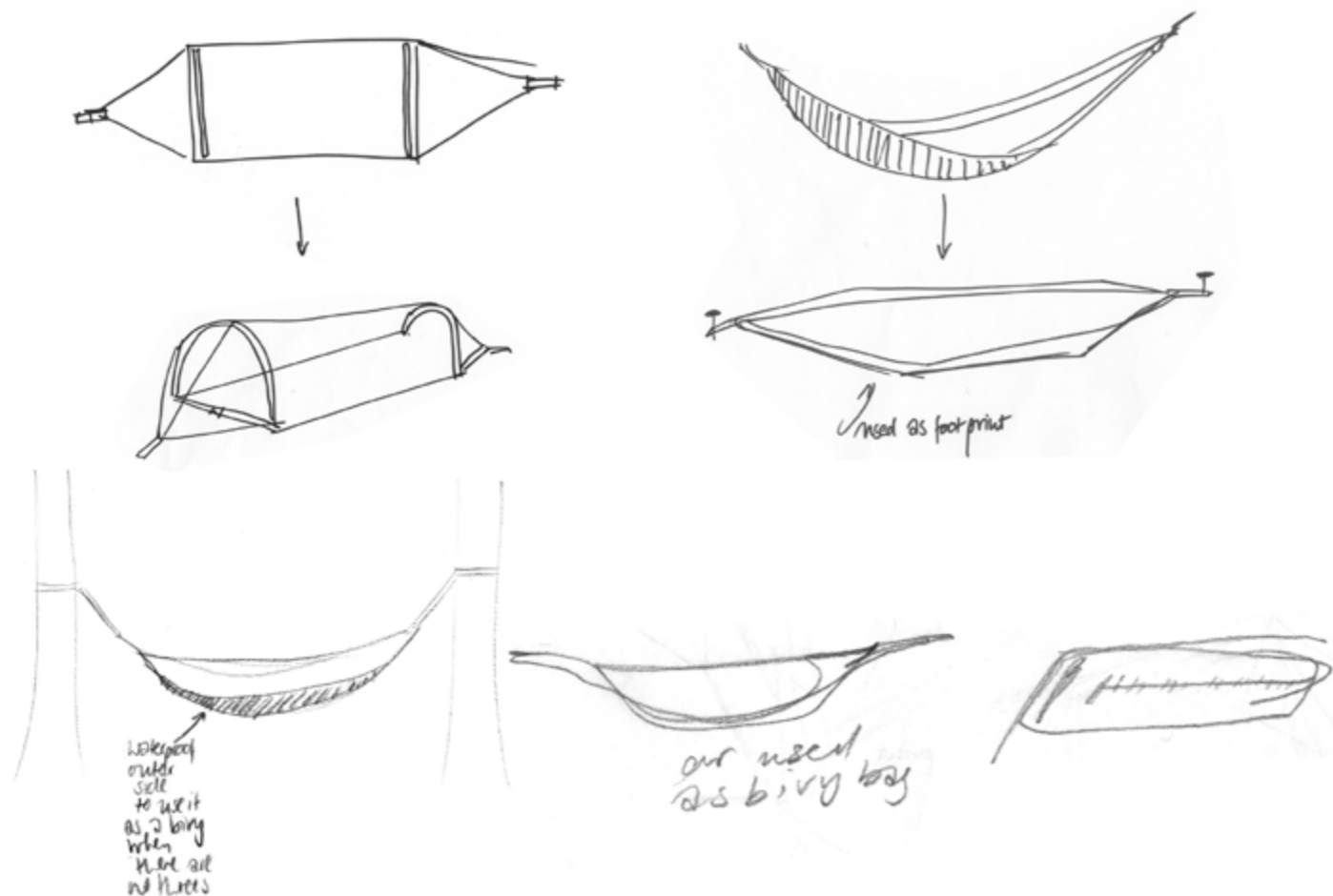
I also sketched different possibilities to pitch the hammock, having a triangle or a bridge hammock.

I also tried to solve the problem of insulation by integrating an air cushion so that a mat or an underquilt would get obsolete. Another solution was to incorporate a double layer to slide in a sleeping mat and prevent it from moving.

After many sketches around that, I concluded that every additional function would make the hammock complicated and vulnerable. When an integrated air cushion would get a tear, the whole hammock would need to be repaired. Therefore, I decided for a modular system: a hammock which would be used with a separate mat, an underquilt or both.

Many people have a mat and a sleeping bag already at home and for me it was important to give people the possibility to use what they already might have at home.

By taking everything into account and trying to solve all problems, the simplicity got lost. Therefore, I decided on the simplest solution: a gathered-end hammock - one simple piece of fabric pitched between two trees.





## IDEATION BLANKET

Parallel to the ideation of the hammock, I also followed the idea of bringing a woolen blanket on a night outdoors. Would it be enough to design a blanket, or should the blanket have a specific purpose?

When digging deeper into hammock camping, I discovered a community that slept in a very simplistic setup. A lot of them used in their hammocks woolen blankets, together with a sleeping mat, for additional warmth. The woolen blanket was wrapped around the hammock - like an underquilt.

Why is there no product like that on the market which makes it easier to use a blanket as an underquilt?

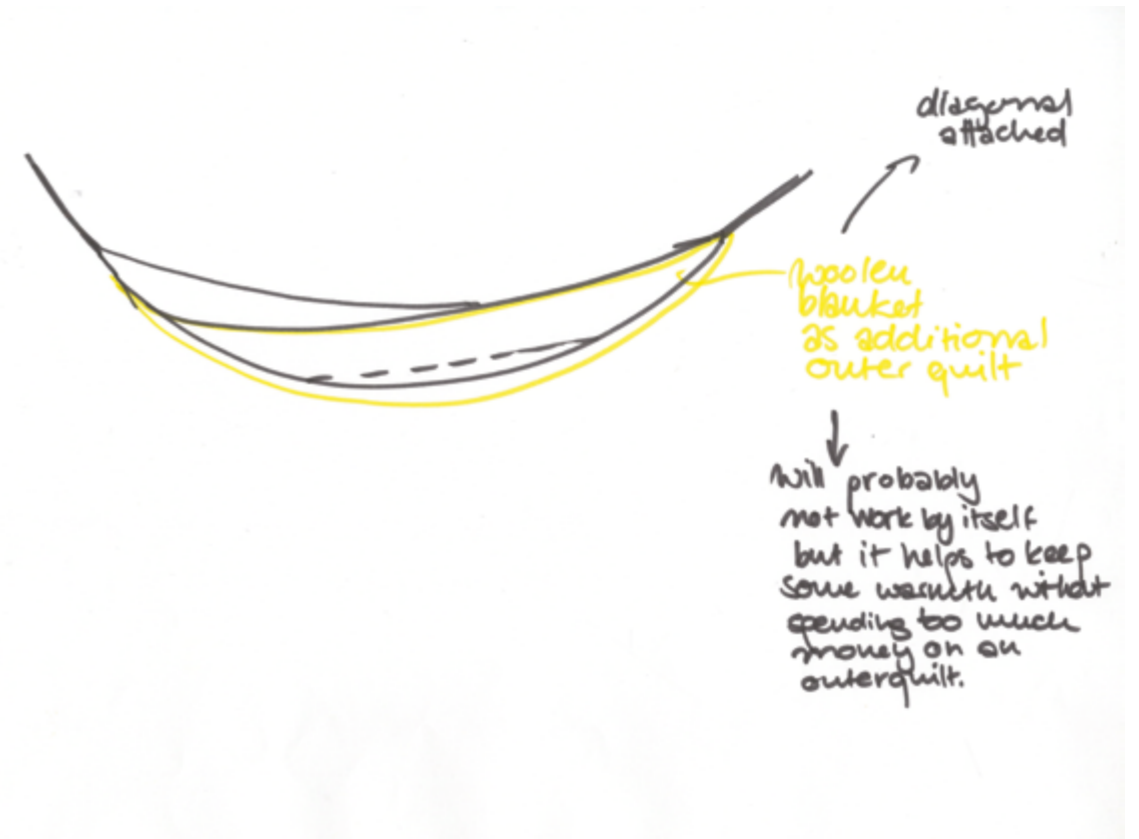
Could the blanket I design be both a blanket and an underquilt - used outdoors wherever additional warmth is needed and would work equally in the home?



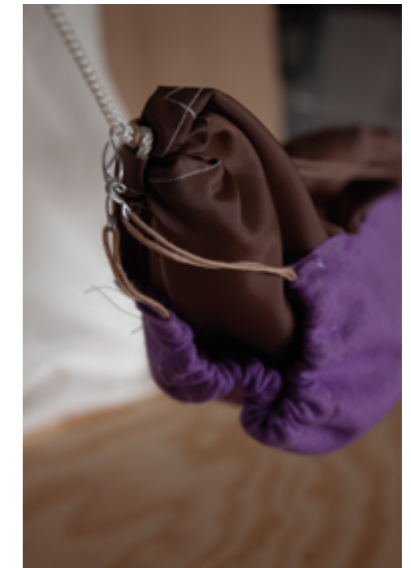
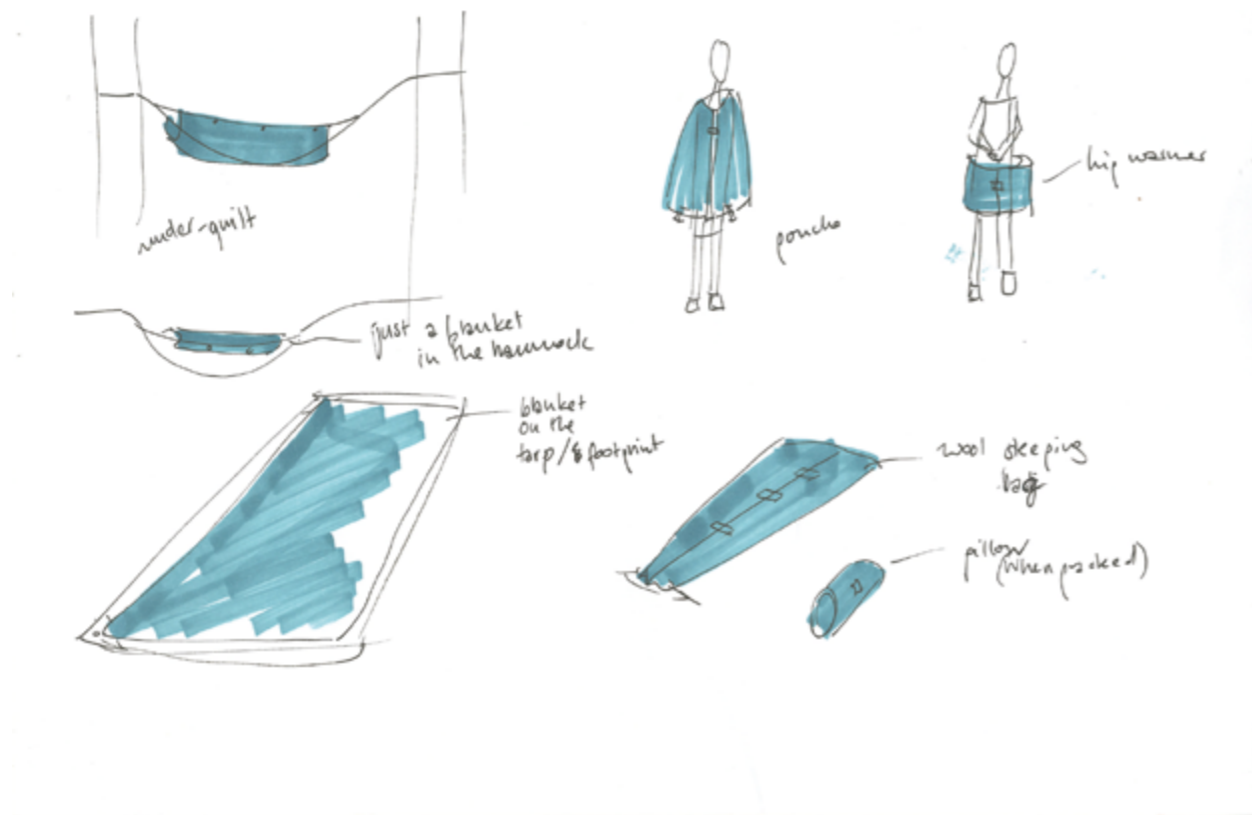
Fig. 70: Knut blanket by RØROS



Fig.57 (p.70)



below: trying out hammock and blanket together in 1:6 scale

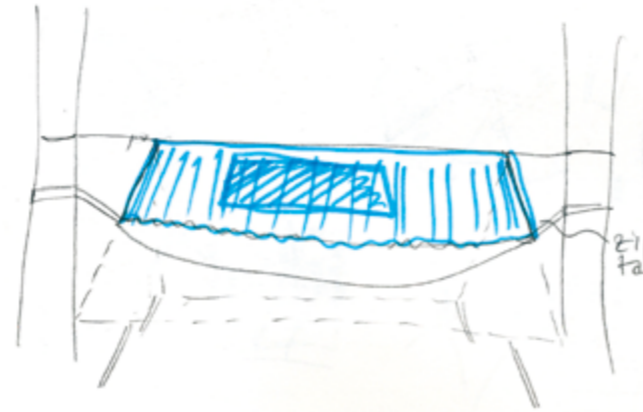
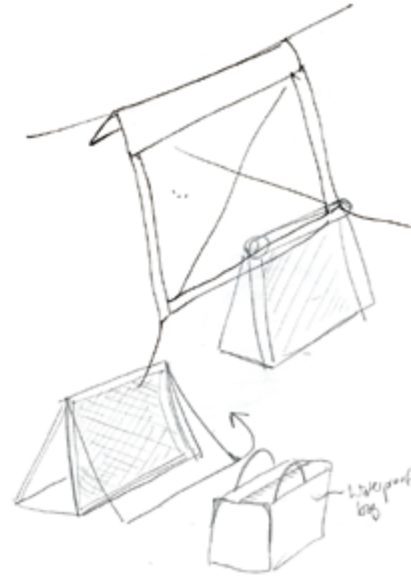
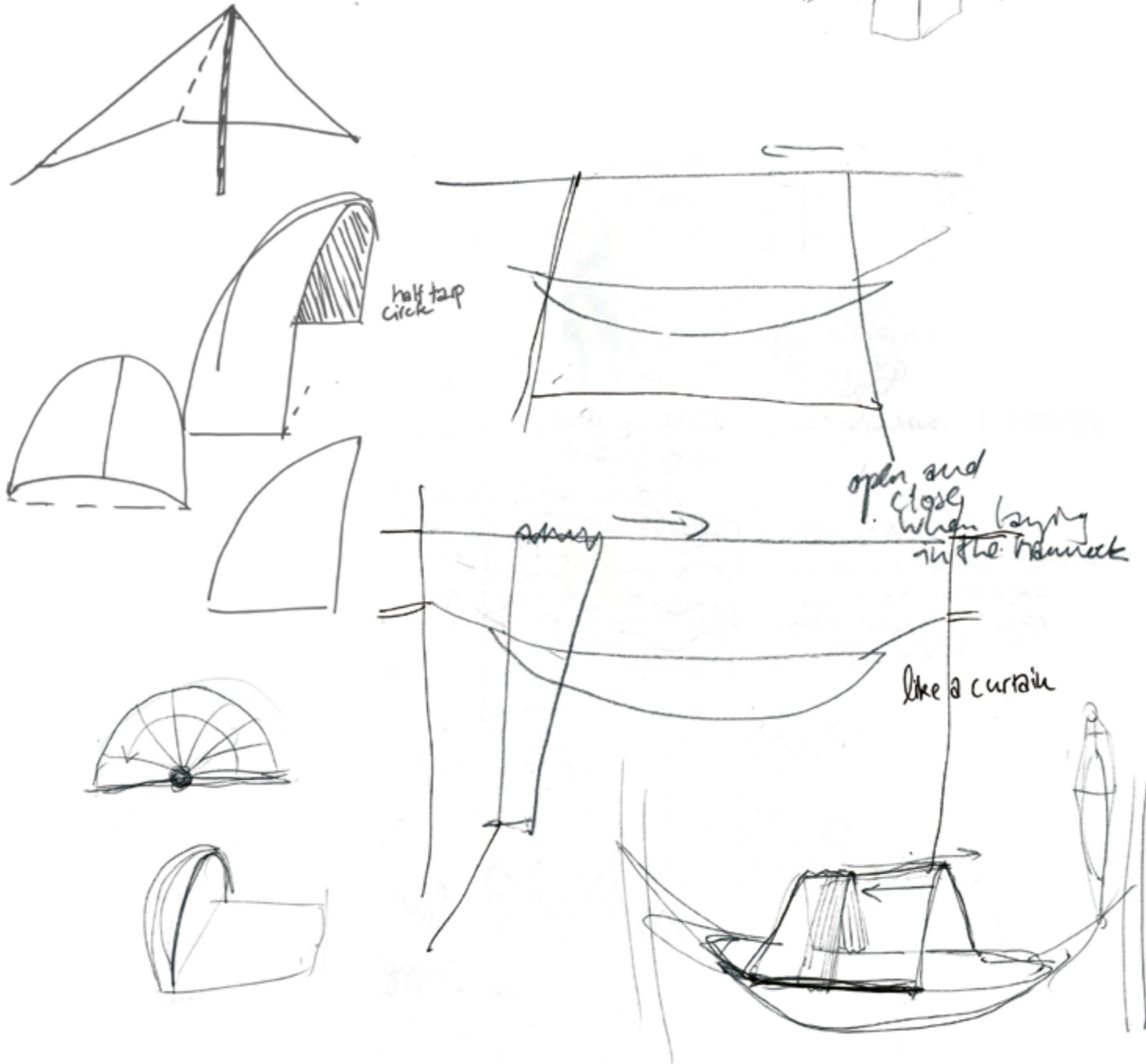


## IDEATION TARP

My process developed more and more towards a sleeping setup which included a hammock. To create a well working experience, I decided to have a tarp to meet the functions of:

- Provides some security
- Provides shadow
- Protects from rain

Plus, a tarp cuts the wind and helps stay warm in a hammock.



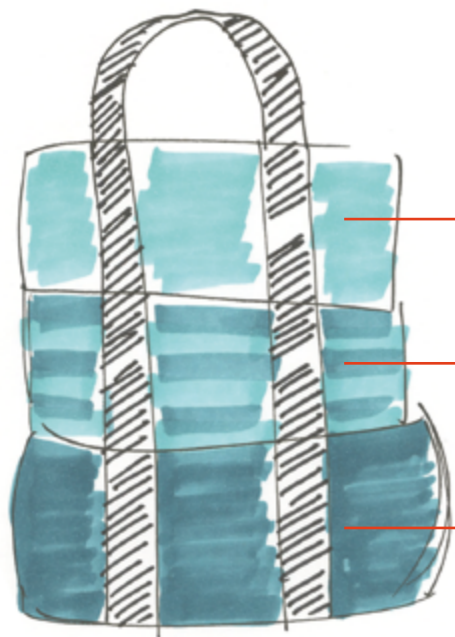
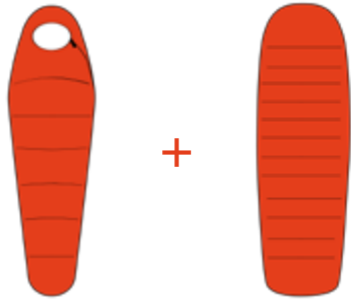
left side and this side: different tarp sketches  
below: trying out fabric as a tarp with a hammock



## IDEATION BUNDLE

I decided to combine a hammock with a blanket and a tarp to provide a setup that meets all the functions that I aimed for but would still be simple. The bundle would be used together with the users' sleeping bag and sleeping mat.

A modular bundle like this would also offer the possibility to leave parts out and go with less, like only the hammock, only hammock and tarp, or only hammock and blanket, depending on weather circumstances or experience.



Tarp

→ rented

Hammock

→ rented

Blanket

→ owned

## THE IDEA OF NOT OWNING GEAR

The finding of the research that people often own gear but do not use it as often, the fact that the expenses of gear make outdoor activities exclusive, and the increasing trend of renting outdoor equipment inspired me to integrate the bundle into a renting system.

The user research showed that there is a general interest in gear but that people are selective in which pieces of equipment they would rent. Sleeping bags and other personal items would, for example, rather be owned than borrowed.

The user should own the blanket as it is a closer, more personal item. Wool should not

be washed too often and rather be aired, which makes it unsuitable for a renting system. An owned blanket gets cleaned and cared for by the user. It gets patina and a personal belonging with emotional worth and memories. An own blanket can be used in camp but also at home.

The hammock and the tarp are essentials for sleeping outdoors in this setup. To make sleeping outdoors accessible to more people, those two items should be rentable. Tarp and hammock can easily be cleaned and repaired when the right material is used, making them suitable for renting.

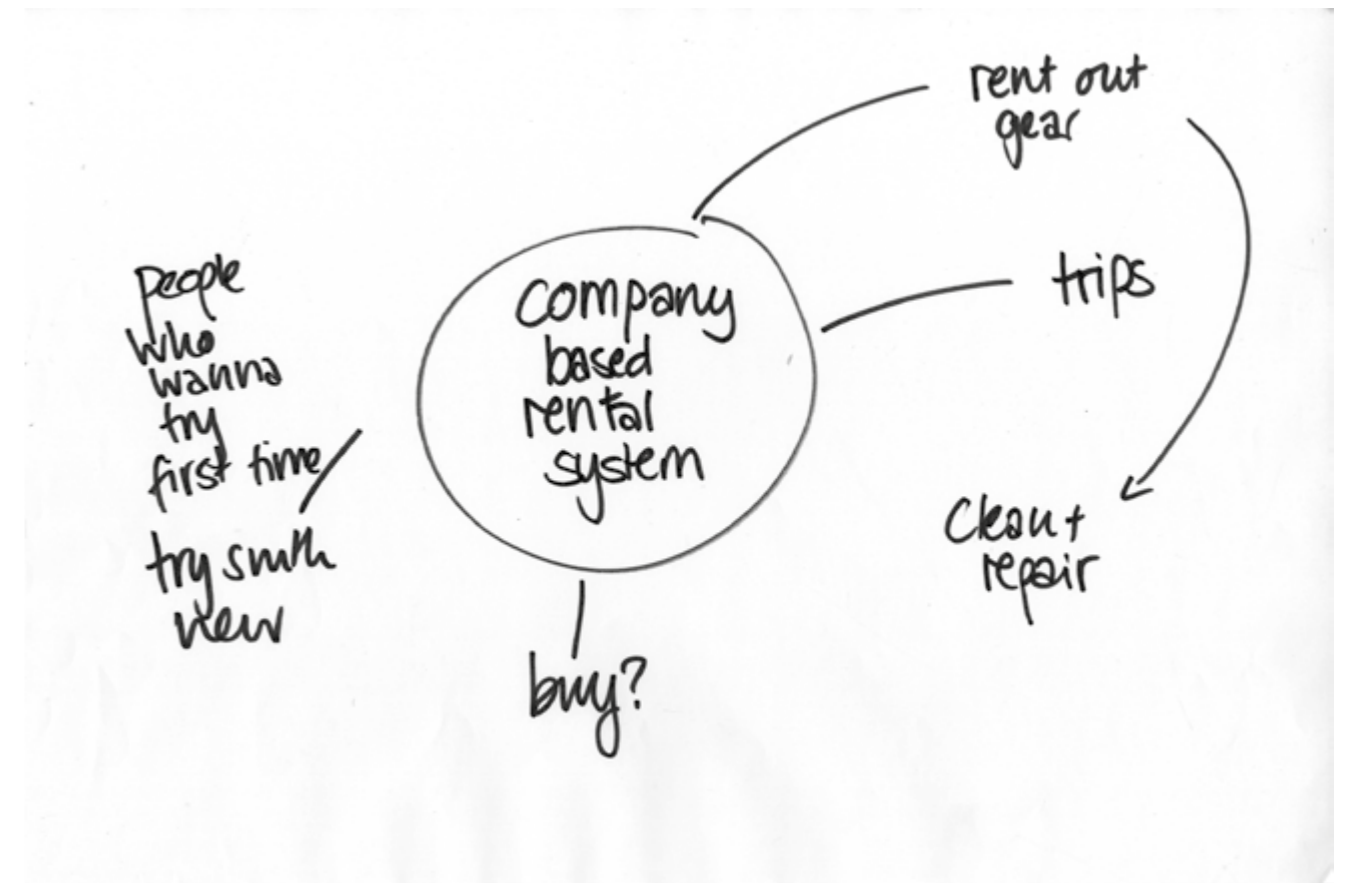
## CONCEPT IDEATION

With the thought of creating a renting system, I also thought about how a renting system might look. The renting system is a new approach to the outdoors by making it affordable. For me, this is closely connected to creating a new community.

Could I create a renting system that is community based? People who have gear could rent it out to people that don't have gear. But how does cleaning and caring of the equipment then work? And is this only an app or could it be a place as well for people to meet and connect?

Another idea was to create a rental system that is company based. The company that produces the gear, rents the equipment out, cleans and repairs. Maybe equipment could be bought if people rather own the gear because they go camping often.

I decided for the company based renting system. Especially the cleaning and caring seemed to be better implemented with that and it kept the possibility open to users to also buy the gear.





**design**

## SYSTEM

The shop offers different possibilities for using the bundle. The hammock and the tarp are short- and long-term rentable, making it accessible to more people. Both items are also rentable separately to allow people to use what they might already have or to camp with less during stable weather conditions when a tarp is not needed. Companies can also lease both items so employees can borrow them directly after work and come back the next day with a fresh mind.

The blanket needs to be purchased and will be owned by the user. The blanket is used in camp but also at home, where it reminds the user of all the nights in nature.

The shop stores, cleans, cares and repairs the gear. There is a buy-back possibility, so unwanted gear does not end up sitting in the storage or getting thrown away. The gear gets refurbished and can be rented again.

The shop is also a community place to get in contact with likeminded people and maybe go camping together. It is also a place for lectures, courses and movies to inspire people and give away knowledge about sleeping outdoors.



## DESIGN HAMMOCK

In the ideation phase I already decided to go for a simple gathered-end hammock.

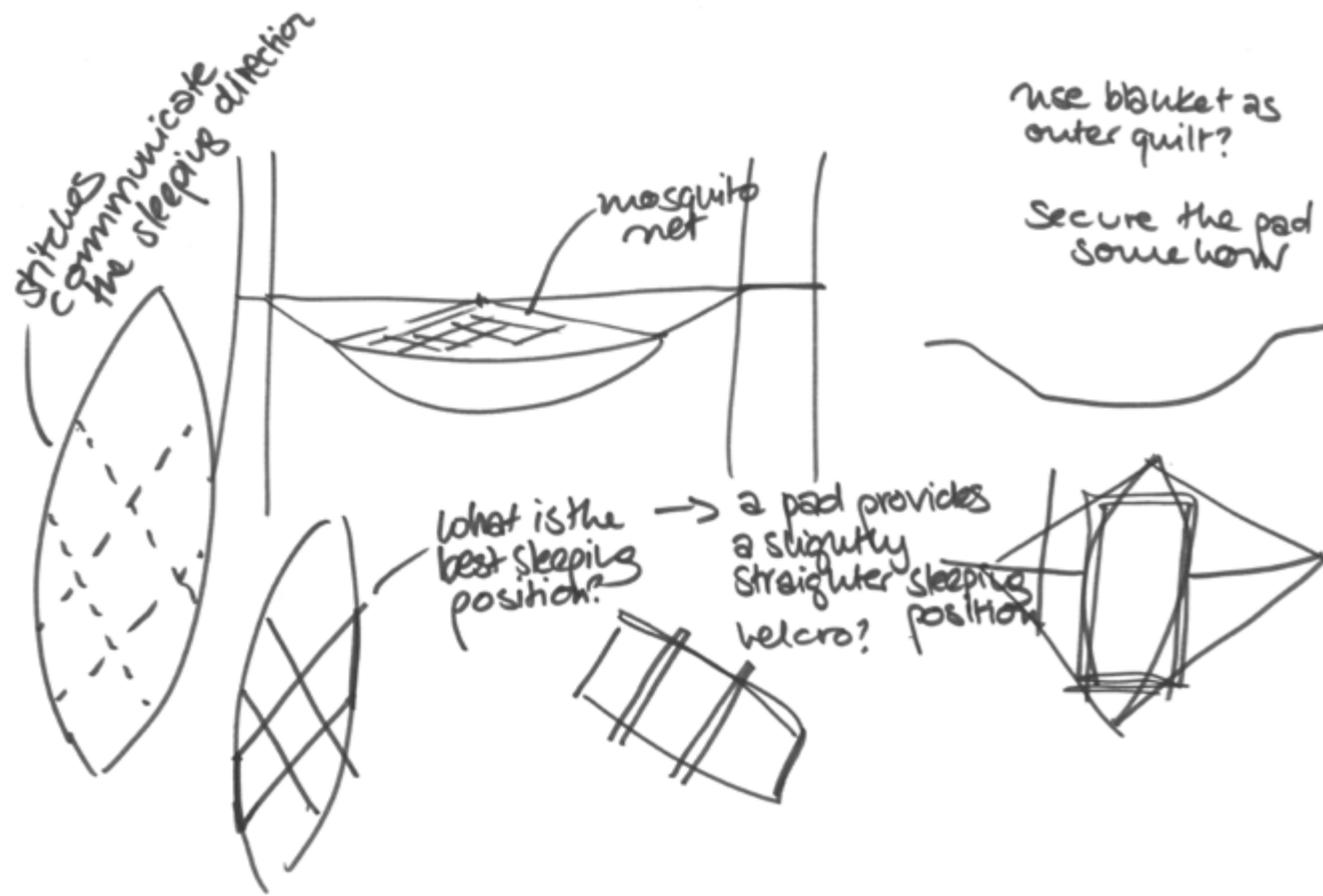
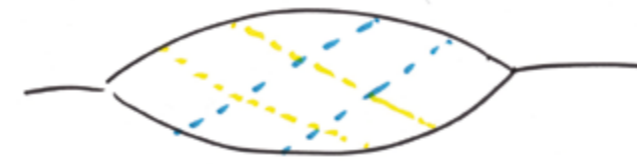
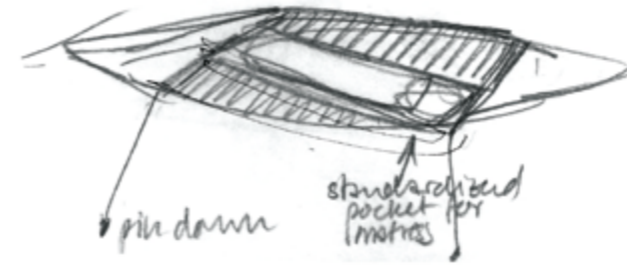
Also with this simple set up, there were still some problems that I encountered in the research about hammock camping, which needed to be solved:

- insulation and holding the mat in place
- communication that laying in a hammock diagonal gives a better sleeping position
- setting up the hammock

By using a mat and the blanket as an under-quilt I could solve the problem of getting cold spots as the wool provides a second layer of insulation. In warmer nights the user can even decide to only bring the mat or the blanket.

I thought a lot about how to communicate to lay in the hammock diagonal. Ideas were to have prints or seems in a diagonal form to show the diagonal position. Though, seems make the thin nylon material fragile and could be even disturbing.

Another idea was to integrate pockets in the hammock where a sleeping mat could be slide in. This would at the same time also keep the mat in place. When trying that on a hammock mock-up it turned out that this would totally restrict the user in the sleeping position. Plus, sewed on pockets created breaking points in the hammock. By trying it out, I realised that this would create a bigger problem for a little problem. Therefore, I decided to leave the hammock as simple as it was.



ridgeline



Another problem that makes hammock appear advanced is setting up a hammock the right way. The suspension of the hammock should be in a 30° angle to the ground. A common mistakes which especially beginners make is tightening the hammock too much. People think that a tight hammock would provide a straighter area to lay on, but the opposite is the case. The hammock needs to have a sack so if the user is laying in it diagonal the material can straighten out and provide a wider area. To find this specific sack and the right angle is essential to have a good sleep and it is difficult. One thing that makes it easier is a ridgeline (described on p. 58). The ridgeline is attached on the two gathering points of the hammock and make sure that the hammock gets the right sack. The suggested length of the ridgeline is 83% of the length of the hammock. I decided to make the ridgeline slightly adjustable to make it fit for different body types and different preferences.

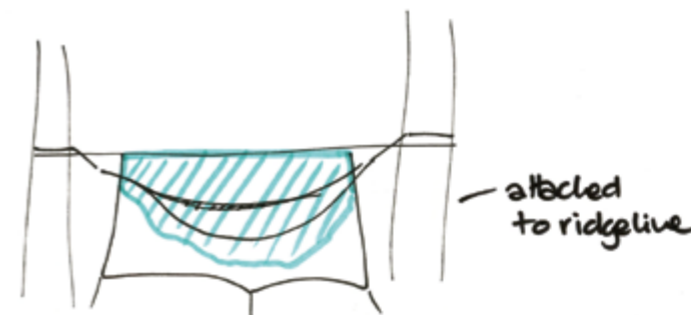
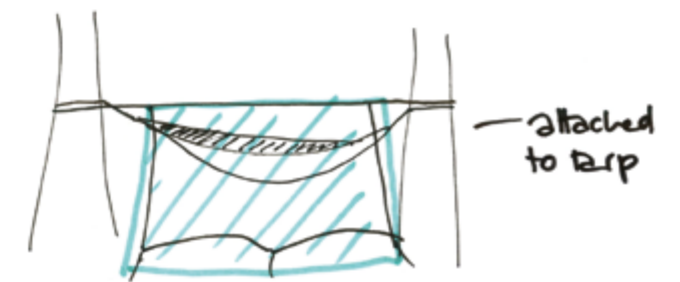


Another problem that makes hammock appear advanced is setting up a hammock the right way. The suspension of the hammock should be in a 30° angle to the ground. A common mistakes which especially beginners make is tightening the hammock too much. People think that a tight hammock would provide a straighter area to lay on, but the opposite is the case. The hammock needs to have a sack so if the user is laying in it diagonal the material can straighten out and provide a wider area. To find this specific sack and the right angle is essential to have a good sleep and it is difficult. One thing that makes it easier is a ridgeline (described on p. 58). The ridgeline is attached on the two gathering points of the hammock and make sure that the hammock gets the right sack. The suggested length of the ridgeline is 83% of the length of the hammock. I decided to make the ridgeline slightly adjustable to make it fit for different body types and different preferences.

mosquito net

Another function I haven't integrated so far was to protect from mosquitos. There were different solutions how to integrate a mosquito net into the set: one that is attached to the hammock, one that is attached to the tarp and one that is independent and is around the hammock. A mosquito net that is attached to the tarp would provide more space inside the mosquito net but would also mean much more material. Plus, it would be another item that needs to be set up in the right way. The same issue had the mosquito net that would be around the hammock.

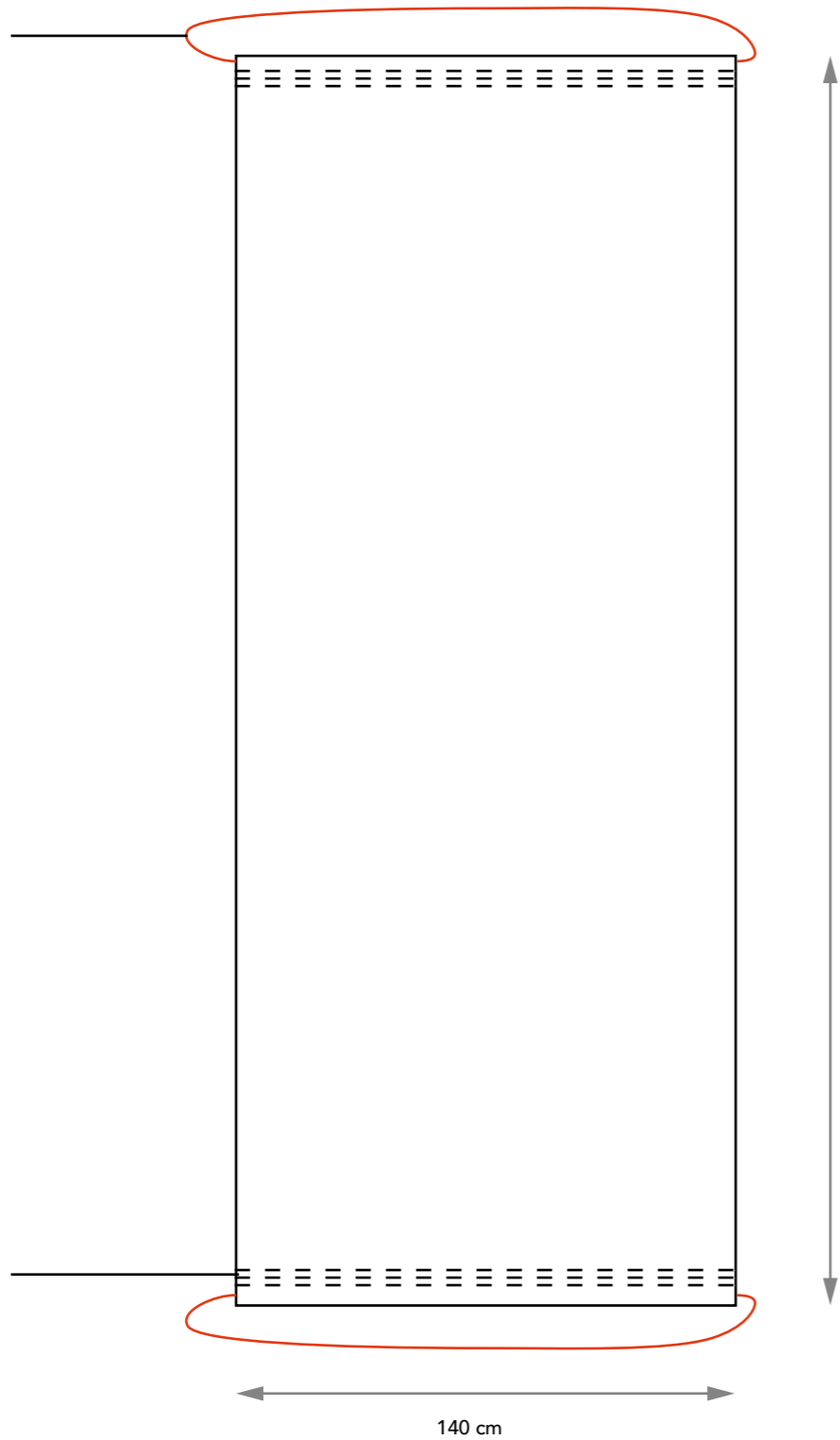
I decided to attach the mosquito net directly to the hammock. This has the advantage that the user does not need to pitch another item which makes the setting up easier. I further decided that the mosquito net should be off zippable, so that the user can also lay in the hammock without the mosquito net when it is not needed.





# MEASUREMENTS AND SPECIFICATIONS HAMMOCK

8mm amsteel woopie sling which works later as suspension

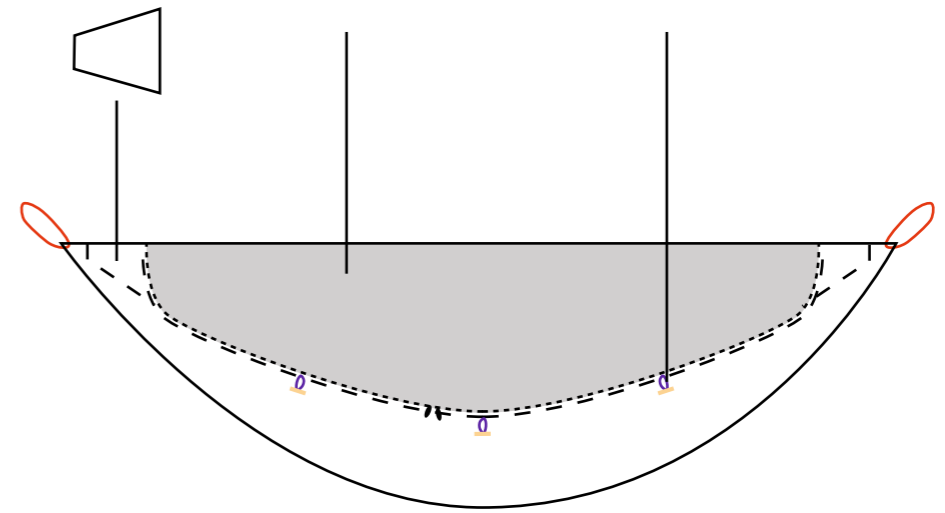


triple stitched drawstring to hold the woopie sling

140 cm

320 cm

sewed in triangles to build a sewed-in mosquito net  
completely zip-off mosquito net with 4 two sided zippers  
hooks for fastening the blanket as an underquilt



## DESIGN TARP

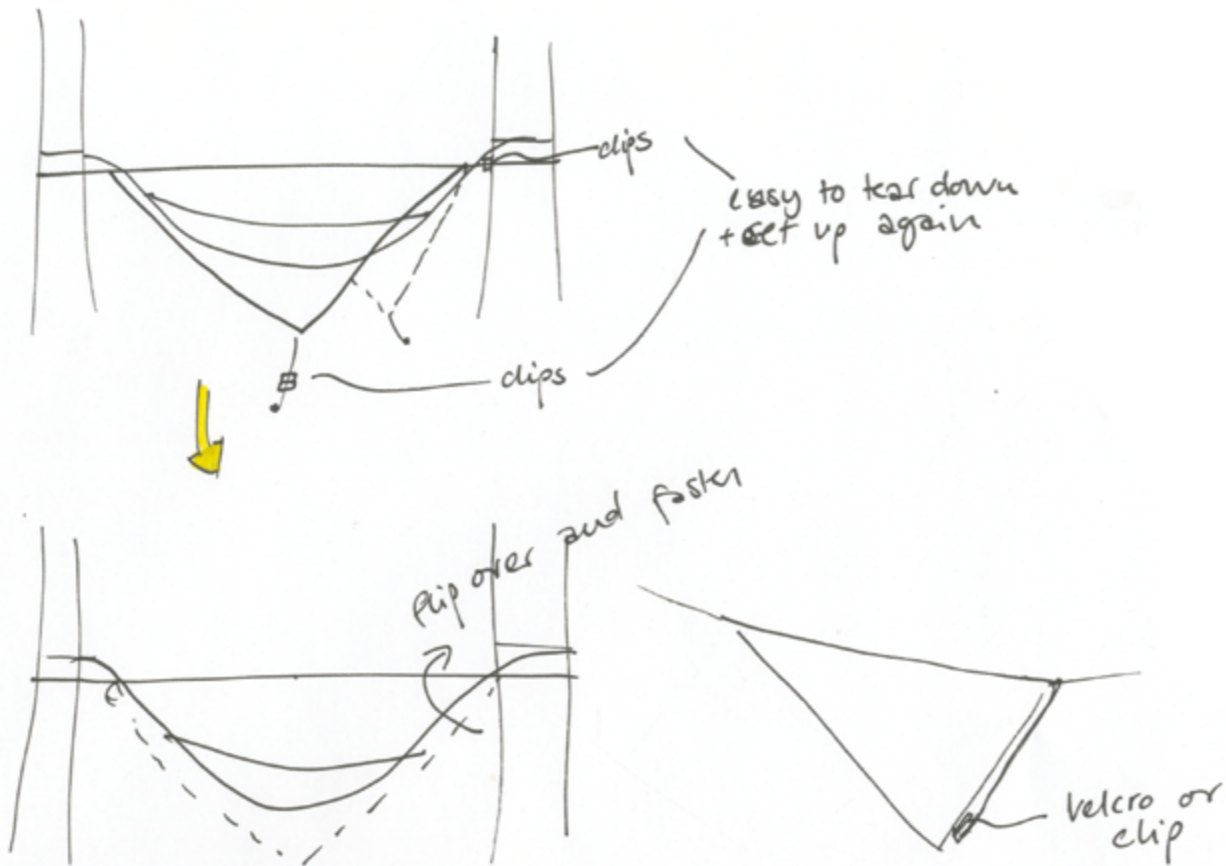
After exploring different possibilities of tarps, I decided to go for a simple squared tarp with the size of 2,8\*2,8 meters. Squared tarps can be set up in a diamond shape, which is the preferred setup when hammock camping, but squared tarps also give the most possibilities to set up the tarp differently.

The tarp should protect from rain, wind and sun. Still, I also wanted to integrate some features: The tarp should also be usable as a footprint to use as a seating area during the day, and the tarp should have the possibility to have a wider view by flipping one side over.

I got much inspiration for the tarp from the Ticket To The Moon tarp that I tried out

during the research. Here, buckles are used to fasten the tarp and pack it together quickly. I decided to integrate this great feature in my tarp. The buckles also allow to unclip one and flip one side of the tarp open for a broader view. With this, I could meet the need I found through my user research, of wanting shelter and a view.

The tarp should also be easy to set up and pack together. Therefore, I decided to integrate another detail from Ticket To the Moon and use different cord colors to communicate which cord color is attached to the tree.

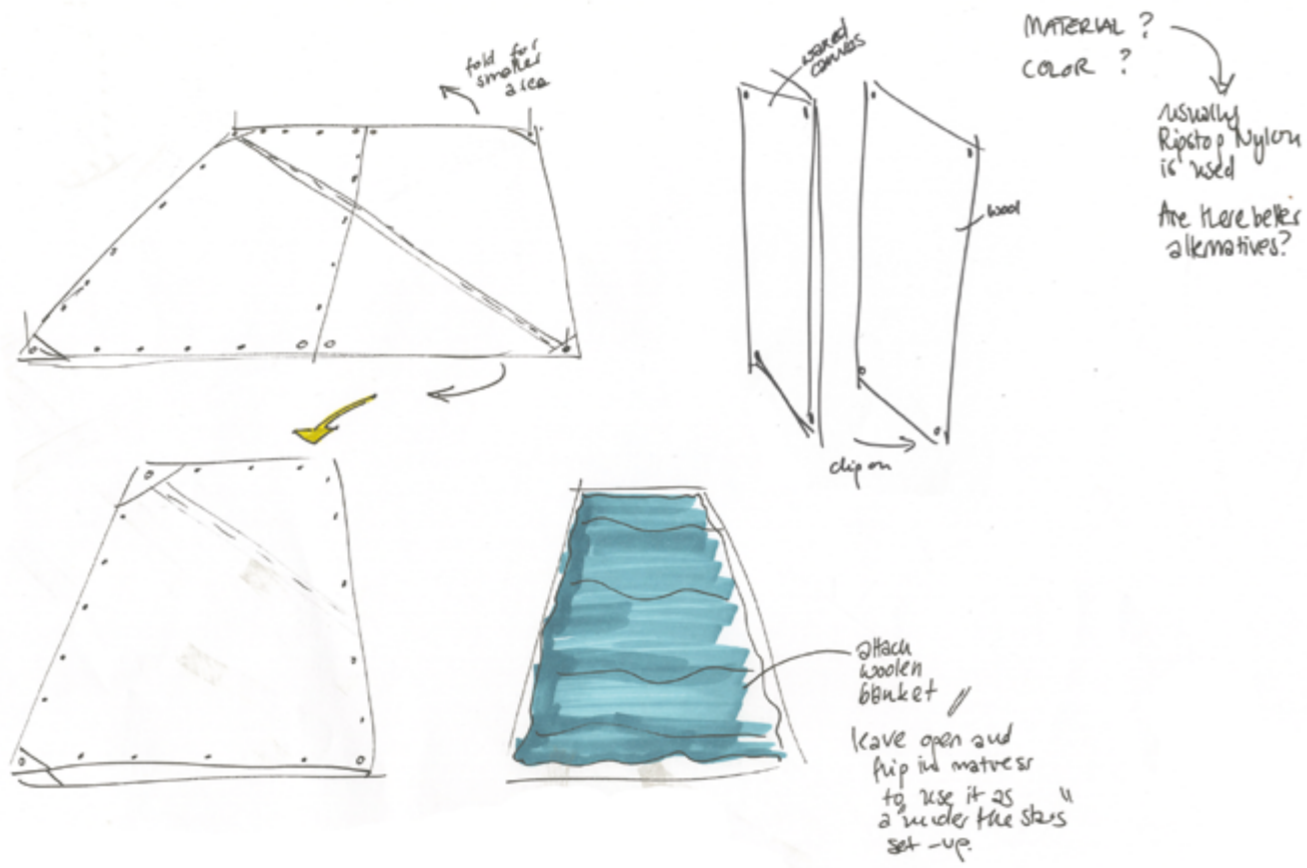


The tarp should also be used as a footprint to create a seating area. Together with the blanket, this creates a cosy seating area. First, I also wanted to fasten the blanket on top of the footprint. By trying it out with a mock-up, it turned out that this simple act of placing a blanket on top of a footprint is self-explaining and does not need any fastenings. Plus, as I was reaching for a simple, versatile, modular and self-explaining product, I needed to give the user the freedom to explore the product and find the best use themselves.

As most fabrics come in a width of 1,5 meters, I needed to decide where and how the tarp can be sewed together. What first appeared as a

problem of not having a 2,8\*2,8\* contiguous square turned out to be a chance for a new design. Being restricted in that sense inspired me to design a two-colored tarp. I could communicate how to fold the tarp when using it as a footprint or to pack it together with two colors.

Two colors also created an exciting appearance and are new to the outdoor market today. Using a dark and a light color could also be a way to protect more or less from sun and light.



DESCRIPTION MISSING





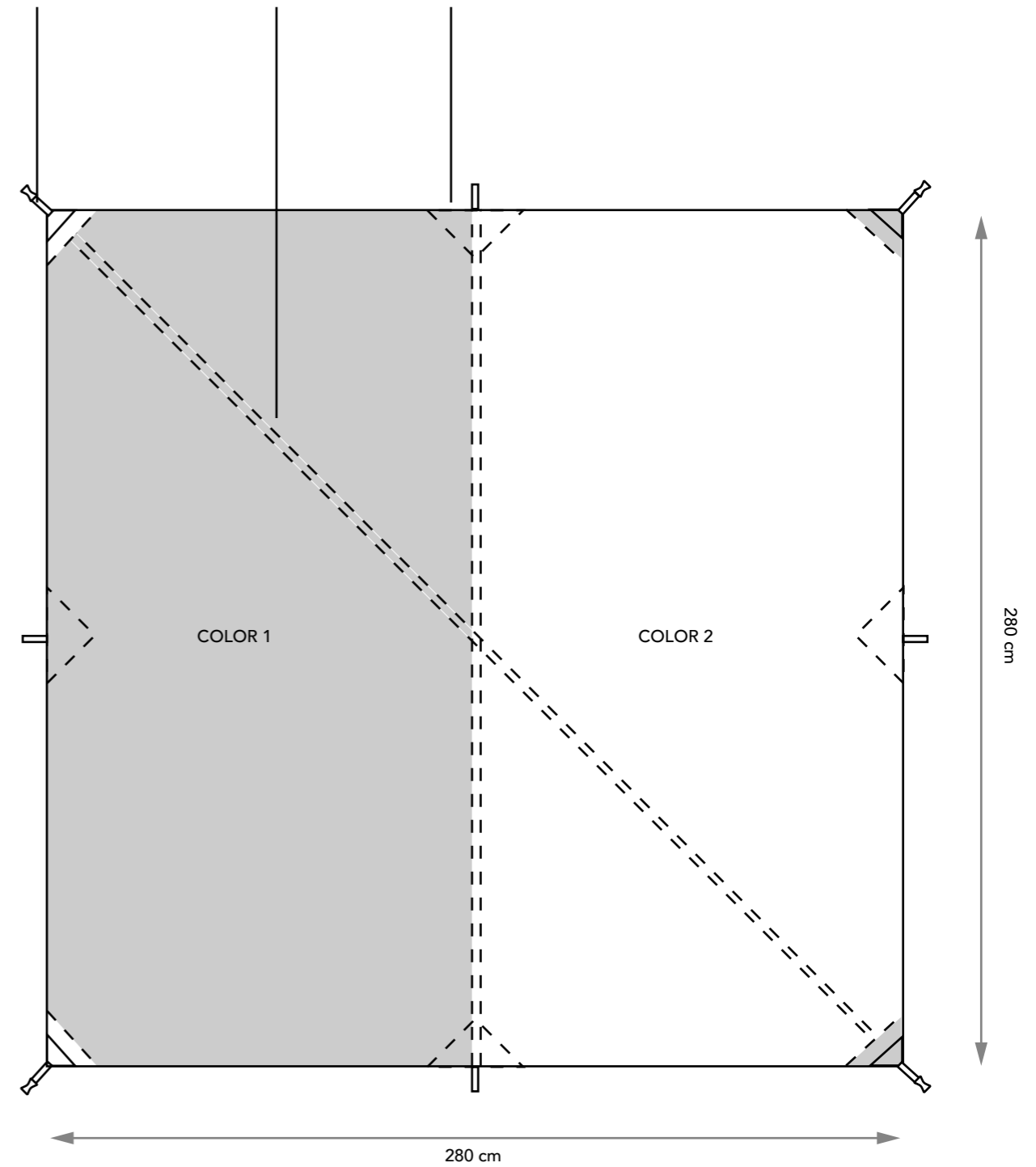
Trying out different options for eyelets to fasten the tarp. Finally, I decided for the both eyelets in the bigger pictures. On the left side it is the eyelet for the sides. On the right side is the eyelet for the edges as this worked the best in combination with the buckles.

## MEASUREMENTS AND SPECIFICATIONS TARP

2 cm nylon ribbon with buckles and reinforced tie-out points with included pockets to store tie-out strings

additional diagonal seams to ensure a well-working diagonal set-up

additional reinforced tie out points with 2 cm nylon ribbons to offer various set-up possibilities

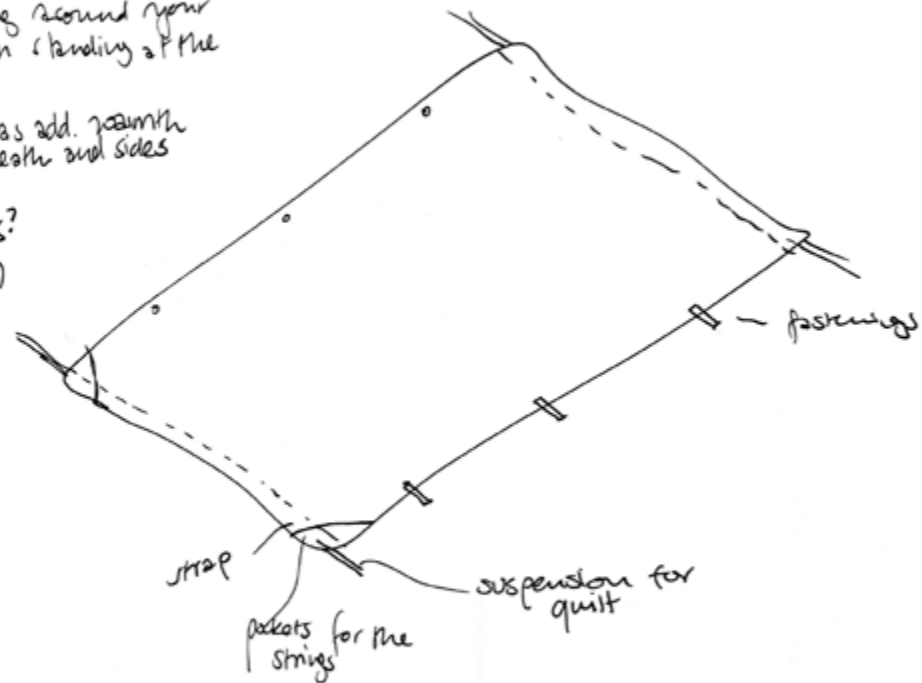


## DESIGN BLANKET

The main question regarding the blanket was, how could I design it, so that it is easy to use as an underquilt for the hammock but would still work as a normal blanket in camp and at home.

I looked at underquilts on the market and how their mechanism works. Most of them are as well rectangular blankets which are sinched together on the shorter side. Then there are different mechanisms of how to attach the underquilt on the hammock and keep it in place. Underquilts are usually equipped with many cords and of course this was something I wanted to avoid on the blanket. A lot of eyelets or cords can be useful in camp but would be disturbing in the home.

- in the hammock during the day
- at the fire for add. butt-warmth
- in the morning around your shoulders when standing at the coast line
- in the night as add. warmth from underneath and sides
- measurements?  
(2.00 x 1.50?)



blanket as underquilt



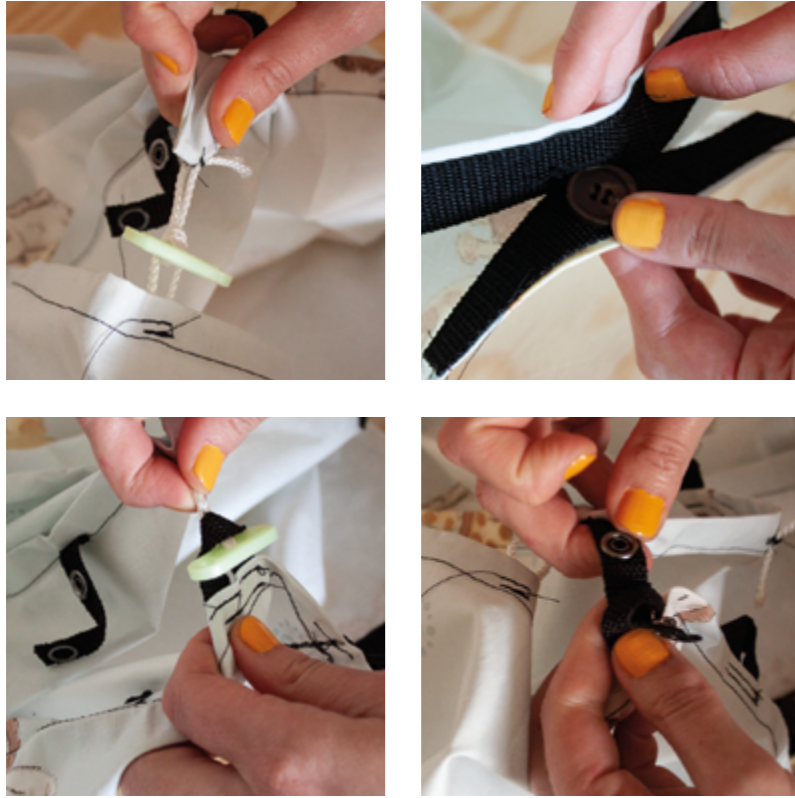
Testing an underquilt from COCOON

Underquilts are usually made of light synthetic fabric and filled with synthetics or down, making it very light. It was unsure if the sinching mechanism would as well work on a bulkier and heavier material like wool.

I tried the mechanism first on a heavy fleece blanket and then on a woolen blanket. I attached a fabric tunnel on the woolen blanket to not put too much friction on the wool. Through the tunnel goes an elastic cord which is sinched together on both side with a cord stopper. This worked very well and the blanket put around the hammock. But on the sides the blanket didn't stay in place and therefore I needed to fit a solution to keep the blanket on the sides of the hammock.



Trying out the cinching technique on a heavy fleece blanket and later on a woolen blanket



Trying out different options for fastening the blanket to the hammock. It was important that the mechanism was intuitive and would also work with cold fingers. Finally, I decided for the solution in the big picture. This one is a known mechanism from jackets, so the user already knows how it works.



Sinching-mechanism on woolen blanket



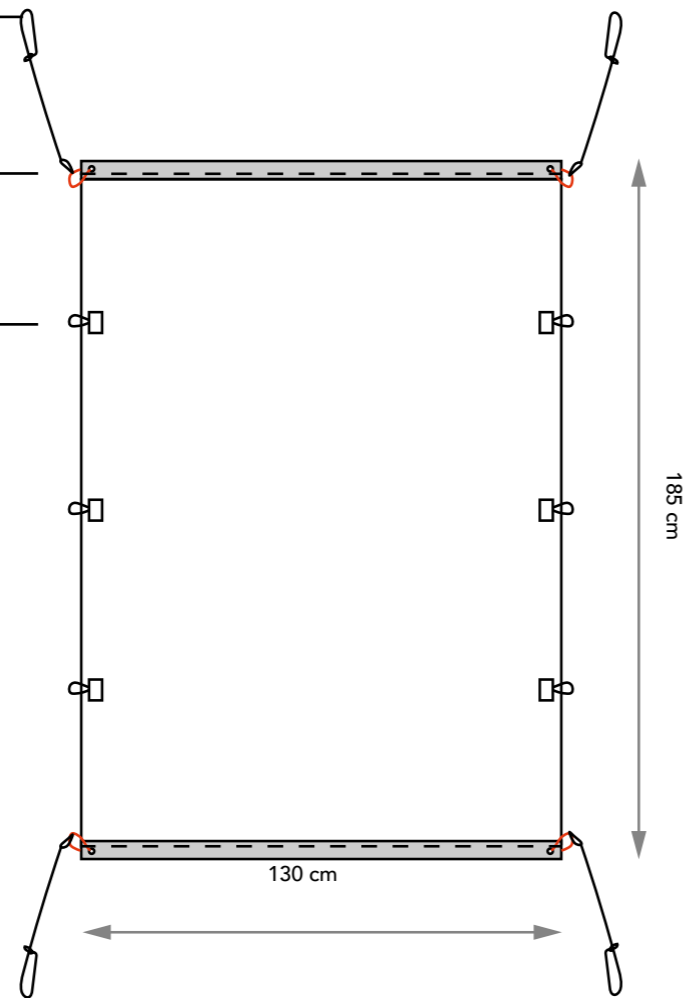
Trying out the first prototype on a night out, where it kept me warmth and gave the verification that a woolen blanket works very well as an underquilt

## MEASUREMENTS AND SPECIFICATIONS BLANKET

2 mm elastic cord to fasten the blanket on the hammock suspension when used as an underquilt, detachable by metal hooks

5 cm + 2 cm seam allowance cotton drawstring with elastic cord in  $\varnothing 0,8\text{cm}$  eyelets for cinching mechanism

elastic cord hooks applied to the blanket with  $2,8\text{cm} \times 5\text{cm}$  sewed on nylon ribbons



## LOOK AND FEEL - MOODBOARD



Fig. 71: Furniture collection from recycled parachutes by Layer and Raeburn



Fig. 72: Outdoor fabrics in fashion



Fig. 73: Details of furniture collection from recycled parachutes by Layer and Raeburn



Fig.74: Close-up wool



Fig.75: Woolen blanket

## COLORS

As the most impressive moment when staying overnight in nature is the morning, it was the main inspiration when choosing the color palette. Waking up to calmness, a moment only for yourself. Fog is coming up the lake and the sun is just about to rise, turning the sky into a pastel peach with facets of powder blue, dark purple, light pink and yellow.

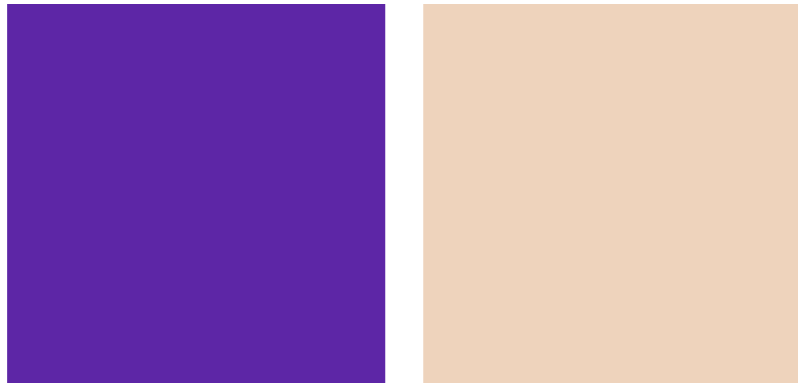




The color combination I chose for the prototype is just one suggestion. In production, the product would, of course, come in more color combinations. I made the conscious decision not to choose the typical outdoor colors due to

my investigation of the contemporary aesthetics of outdoor gear. Anyhow, I want to show a color combination that is less poppy. This side shows the color combination of the prototype, the right side an alternative combination.

Tarp



Hammock



Blanket



## MATERIALS

### Tarp

I decided to use ripstop nylon in a 50den thickness for the tarp.

Ripstop nylon is a woven fabric that uses a reinforcement technique where stronger yarns are interwoven, making it more resistant to holes and tears. Ripstop nylon exists in various thicknesses and is even strong when woven very thin. This makes it suitable for ultra-light textile products and is especially used in outdoor products.

The ripstop nylon is coated with silicon which reinforces the strength and makes it waterproof and durable. Ripstop nylon is easy to maintain, which makes it a suitable material for a renting situation.

### Hammock

The hammock is made out of nylon Taft with an OEKO-TEX®Standard 100 nylon. This nylon is extremely soft, comparable to silk. This fabric is eco-friendly and hypoallergenic, making it suitable for people with allergies and sensitive skin. As the hammock is close to the user, this is important.

### Blanket

Already in the beginning, it was clear that it should be a woolen blanket. My experience with the woolen blanket on a night out convinced me that wool is a great material for outdoor use. It has excellent warming qualities, absorbs up to 30% water and still warmth when it's moist, and it is fire-resistant. Wool is self-cleaning as it contains lanolin and often, it is enough to air it.

All outdoor blankets on the market are synthetic, which often has the downside of needing a special treatment to make them fire-resistant. Synthetic blankets are light and can be very small compressed, which is great on more extended camping or backpacking trips when weight and space play a more prominent role, which is on a one-night micro-adventure negligible.



## PATTERN DEVELOPMENT FOR THE BLANKET

I found the first inspiration for the pattern in a traditional Swedish pattern from ca. 1800 (Fig. 76). Even so, this pattern is very old, it still looks modern due to the graphical design. From this starting point, I developed several patterns inspired by modern graphic works (Fig. 77 - 80).

I decided to only work with two wool colors and to design a continual pattern that could get produced on a roll and cut anywhere to reduce the production price to meet my target group.



Fig.76: Swedish Lightning pattern

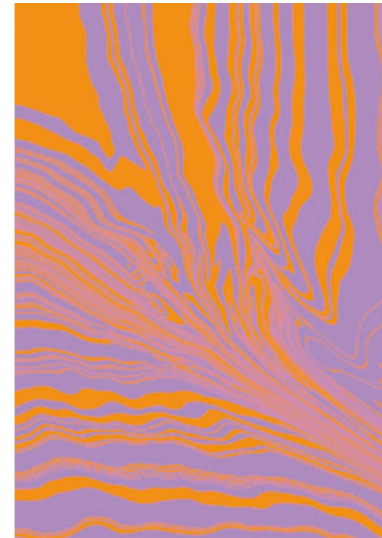


Fig. 77: Blanket inspiration 1



Fig.78: Blanket inspiration 2

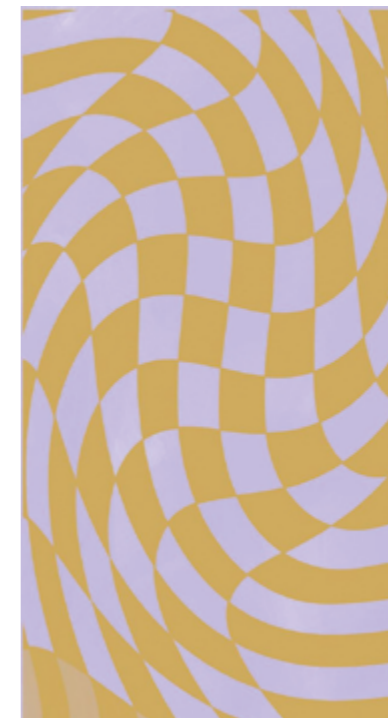


Fig.79: Blanket inspiration 3

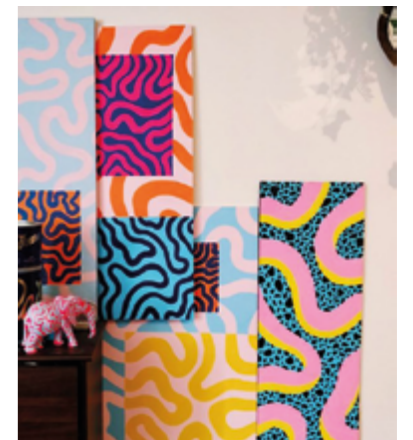
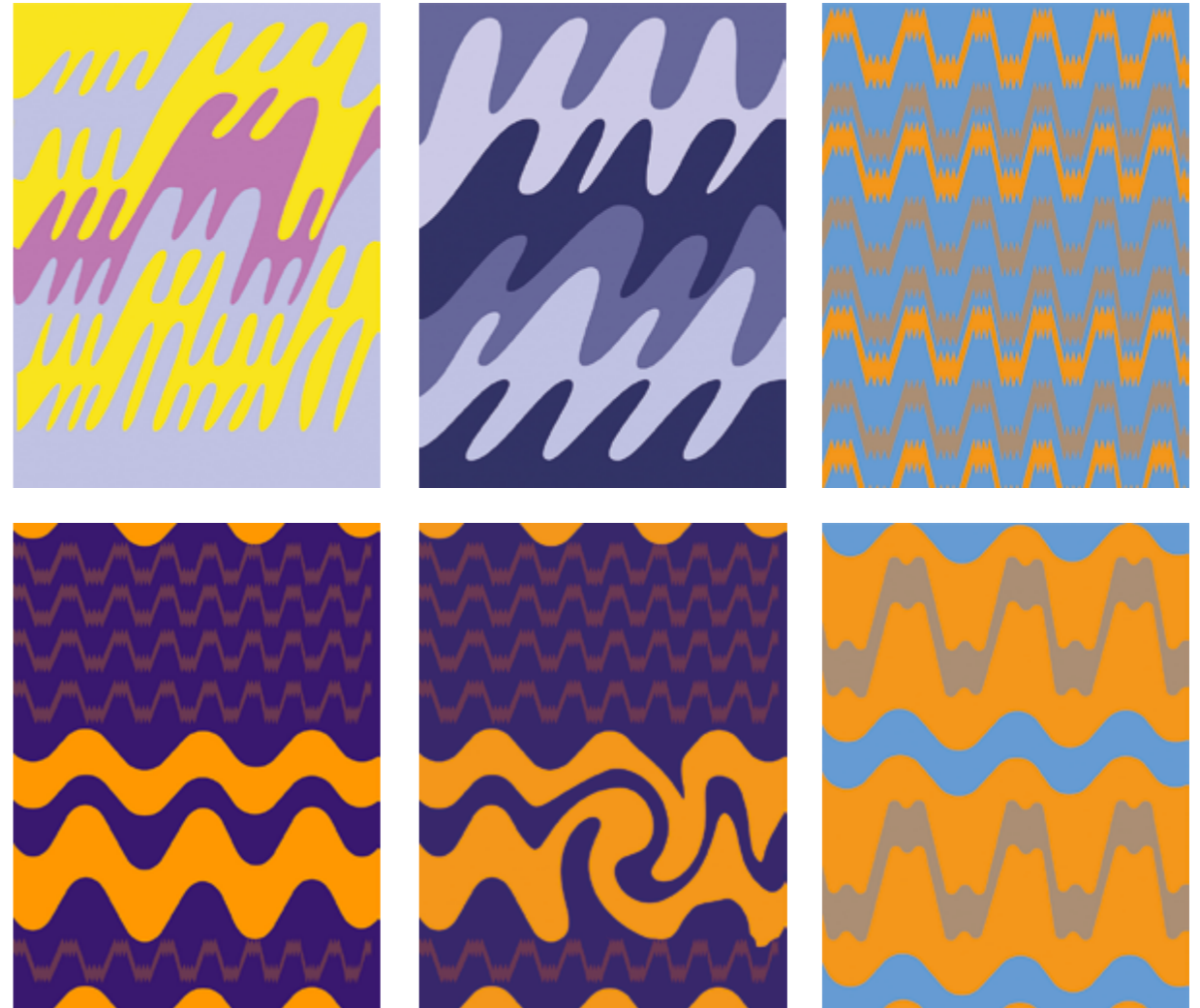


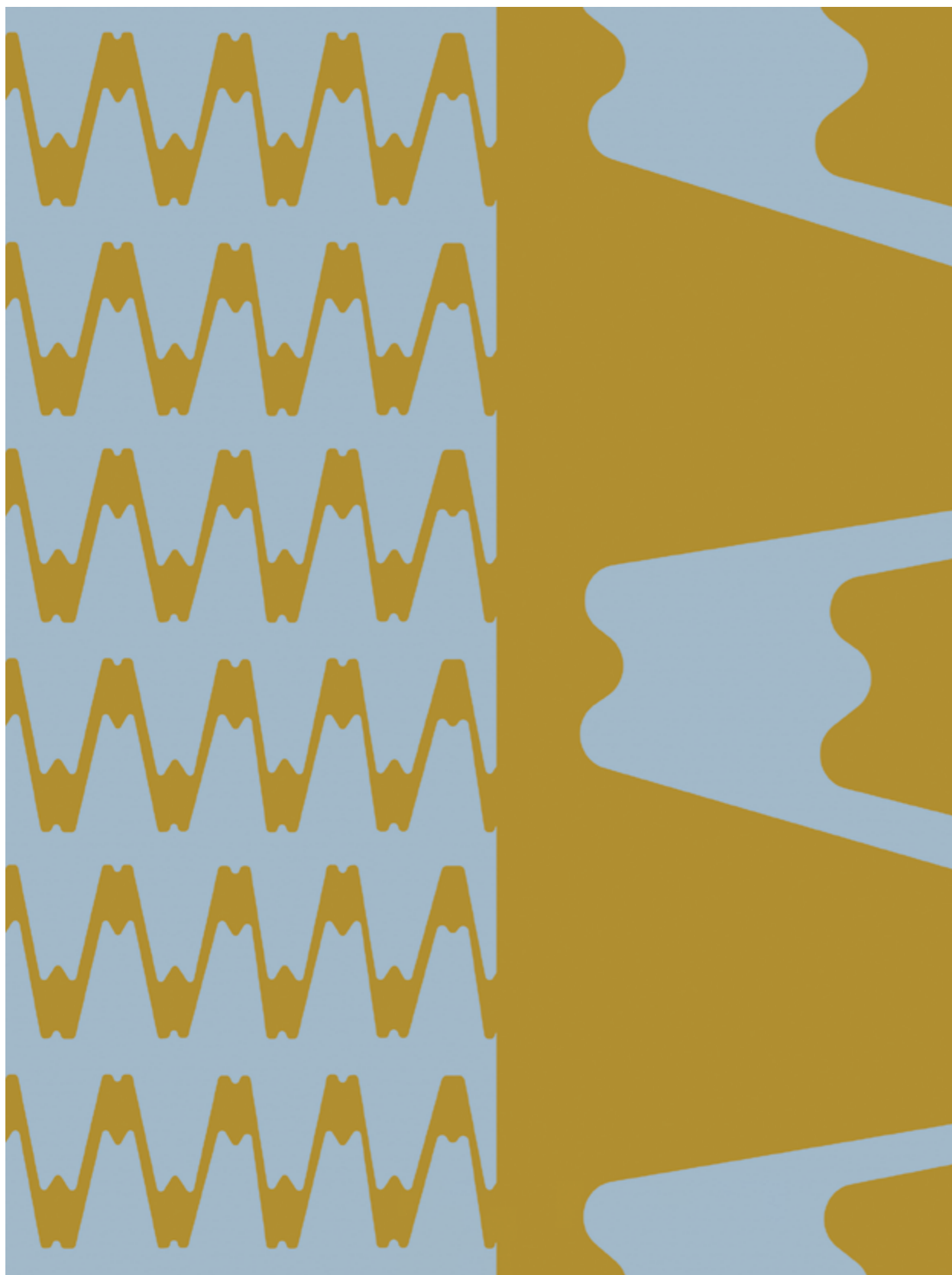
Fig.80: Blanket inspiration 4



Trying out different wool color combination.



Trying out different pattern designs.



Above: the final pattern design  
Right page: Rendering of the blanket





# prototype

YAWN is a bundle that contains a hammock, a tarp and a woolen blanket it comes with suspension and tent pins.

Unfortunately, I could not produce the blanket with the designed pattern for the prototype. Therefore, I used a blanket from Klippans Yllefabrik AB with a pattern and colors that would still fit well together with the colors of the other materials.



Hammock is set up between two trees.

YAWN comes with tree-straps which are the suspension for the hammock. The hammock gets clipped in with carabiners on each side. The hammock comes with an attached mosquito net which can be completely zipped off and stored in a little sack.









The tarp is placed over the hammock to protect it from rain, sun and wind.

The tarp gets fastened with the black strings on the two trees. The strings are held by two little hooks and can be fastened by the buckles. On the two other edges of the tarp are orange strings that get attached to the ground with supplied tent pins and tensioned by the buckles. Two different string colors make it easy to understand which edges go where. The strings can be stored in sewed-in pockets.

When the tarp is used as a footprint, it can be unfastened through the buckles - quick and easy. The tarp gets folded where the two colors meet - intuitively for the user.







The attached ridgeline makes it easy to set up the hammock, even for beginners. On the ridgeline is an emergency whistle and a hook where a lamp can be hung.

The most versatile piece is the woolen blanket. The blanket can be transformed into an underquilt by a sinching mechanism and hooked on the sides of the hammock to keep it in position. The underquilt is attached under the hammock for colder nights. It gives additional warmth wherever needed: by the fire, lying in the hammock, or watching the sunrise.











With YAWN, I want to inspire people to integrate micro adventures into their daily life, like sleeping outdoors in the middle of the week. Waking up in nature, the morning all to yourself, before heading back to work. One night in nature does not require a lot of gear, knowledge, money or time, and it should be easy.

The outdoor community today can be exclusive, which holds people back from even trying outdoor adventures. YAWN is less technical, easy to set up, and is therefore suitable for beginners. YAWN's colorful design brings playfulness into a world of functionality. The woolen blanket adds a more cosy aesthetic compared to usual synthetic gear. The hammock and the tarp can be rented, which makes it accessible to more people. The blanket becomes your own and reminds you at home of all your



# conclusion

## OUTLOOK

Due to the restricted time, there are still some points I could not elaborate on as deeply as I wished.

First of all, my potential target group needs to try the product so that I can see if I succeeded in making it easy to understand and use. Within that, I want to work further on communicating the diagonal sleeping position in a hammock. How to lay in a hammock could also be communicated by the shop. I would like to investigate if an explanation is even necessary or if people would find it out after trying it out.

Another point I would like to work further on is the rental system, location, and design of the shop. This would include:

- How does the cleaning and repairing work?
- Where is the store located or is it a shop-in-shop system and if so, where?
- What are the opening times and is there a need for a vending machine if people decide to go camping spontaneously?

Regarding the rental system, a question that needs to be further elaborated on is the costs. How much does the user need to pay for the bundle, and is it really in relation to the costs of buying? How low can the renting costs be? My aim from the beginning was to make sleeping outdoors affordable for more people by renting it.

## REFLECTION

My aim from the beginning was to design a product. I know that my strength lay in the research and concept of a project, but often, in my previous projects, I got stuck in the research and it was hard for me to take the next step into the ideation and the design. Due to researching too much, I often ran out of time, so my projects ended with only a concept but not a fully thought-through design.

I'm happy that this time I succeeded. I had never worked on such a detailed level before, and making all the tiny design decisions on all the details was challenging but fun.

But I can also tell that intending to design a thoroughly thought-through product, I spent less time on a fully thought-through concept, and I think this project is lacking clearly here.

Furthermore, this project taught me that sometimes things must be complicated first to decide on the simplest solution later. To come to those simple solutions early, I see in a retrospective that I should have taken the step to make 1:1 scale mock-ups earlier. With the mock-ups, I got many insights. By doing them earlier, I probably could have come to conclusions sooner and worked on an even more detailed level.

I'm glad that I chose a topic that I have a passion for, and this passion gave me much motivation in the end. A topic that is connected to the outdoors gave me the possibility to be outdoors a lot which gave me balance in times of huge workload. This draws the line back to my initial motivation of living a life filled not only with work but also with adventures and spending time in nature. Overall, I'm very happy with the project's outcome.

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## LIST OF FIGURES

Not numbered pictures are pictures by the author. Pictures on the pages xxx - xxx are made by Mikael Holgerson on behalf of the author 2022.

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