HYPERBOREA
REVIVAL OF THE GRAND TOUR
VICTOR ANDREAN

UMEÅ INSTITUTE OF DESIGN
UMEÅ UNIVERSITY
In Collaboration with Rolls-Royce Motor Cars
BMW Group FIZ - Munich Design Studio
Mentor: Daniel Starke

MFA Transportation Design
Programm Director: Demian Horst
Sr Lecturer: Jonas Sandström

External Examinators:
Louise Temin (Volvo Cars)
Sam Livingstone (Car Design Research Ltd)
ACKNOWLEDGEMENTS

Thank you to everyone who has supported me throughout this thesis.

Thank you to Demian Horst for your great efforts as transportation design course director and thank you Jonas Sandström for your thoughtful tutoring. Thank you to the whole UID family for the experience of a great education and memorable moments.

Thank you to everyone at the BMW Design & Rolls-Royce Design Studio for supporting my graduation and thank you to my mentor Daniel Starke for your subtle guidance and helpful onpoint feedback.

And a special thank you to my family and girlfriend for backing me up at all times and accompanying me along my way.

Thank You!
# Table of Contents

## Abstract

## Introduction

## Process
- Future Context
- Legacy of Travel
- The Grand Tour
- Future of Travel and Tourism
- The Quest for Enlightenment
- Interior Architecture Benchmarking
- Research Sum-Up
- Ethical Approach
- Architecture Probes
## References
- Literature & Magazines 85
- Online Sources 85
- Images & Graphics 89

## Appendix
- Degreeshow 94
- Time Schedule 95
- Dimensions 97
- Digital Model 99
- Physical Model - Parts 100
- Physical Model - CMF 101
- Model Making Process 103
Abstract

What if people would travel for enlightenment?

Tracing back human life through the centuries reveals that humans have always been wanderers exploring the world. For thousands of years our distant ancestors travelled the lands as nomads before settling down and founding the first communities which, over time, grew into today’s cities. Humans have the impulse to travel out of curiosity and to find out what lays beyond the horizon. Many risked their lives by crossing oceans, climbing mountains or by taking other challenges from nature. Hereby each generation has contributed to the means of transportation as we know it today.

Our next generations will cope with many inventions where humans will become obsolete. Autonomous driving, parallel realities and big data assisted products are already upcoming. In order to avoid becoming and feeling superfluous, mankind will search for meaning in their existence.

In the 18th century humans have endeavoured travel with the goal to become enlightened for the first time. The Grand Tour was a formative experience for the British youth as part of their education by undertaking a rite of passage through continental Europe. Exposed to the cultural legacy of classical antiquity and the Renaissance many adventures occurred during these travels. Travelers would document, consume and create tokens along the travel and on their return would present these to the less fortunate, who stayed at home, and demonstrate their enlightened and grown minds.

The project encompasses research in the field of future tourism, the purpose of travel and enlightenment. Various design proposals were made using 2D analog and digital sketching tools. These have been further developed with the use of 3D software and verification of 1:5 scale 3D prints as well as full scale simulations in VR.

The thesis project explores the boundaries of transportation design by offering a fully serviced travel, a revival of the Grand Tour, with the project title ‘Rolls-Royce Hyperborea’. The occupants are conducting a travel to create a paradigm shift in order to obtain control of their minds. The goal is to get in touch with the inner self, to see and understand the bigger picture - becoming enlightened in a state of bliss. The project explores interior architectures and the possibilities that come along with autonomous driving by redefining the classical archetype of the GranTurismo as we know it today. The interior offers three different modes with unique features to stimulate the occupants in creating a lasting visceral experience.
من يعيش يرى، لكن من يسافر يرى أكثر

Who lives sees, but who travels sees more
Introduction

The future generation will face many technological developments which will outperform the human, autonomous driving is already appearing as one of them. Professor Stephen Hawking warned that artificial intelligence is going to be “either the best, or the worst thing ever to happen to humanity”. On one side a great loss of jobs is predicted due to automatisation. On the other side humans will endeavour the quest for self-meaning and search for new ways of expression. This thesis tackles these trends and explores a new holistic experience with Rolls-Royce as a background. The basic idea envisions a user traveling a long-distance journey for enlightenment purposes. The focus should lie on the interior design where multiple elements of the journey such as connectivity, comfort and the joy of travel and a way to enlightenment are the key ingredients.
Initial Thoughts
The first spark of interest was triggered by the launched Phantom in 2003 which ignited the intrigue for Rolls-Royce. Where this sudden interest came from is very unclear as the so far experienced background was a very sober down-the-earth Amsterdam mentality. However, this intrigue had nothing to do with the price for a Rolls-Royce, its exclusivity or luxurious comfort. It was rather the attraction towards a figment of the imagination, something beyond the tangible product itself that sparked such appeal for this car.

Motivation
The image of Rolls-Royce is one of an object of beauty, being the tangible representation of the owner and thus an own character on the road. It is always a curiosity, upon spotting a Rolls-Royce driving, of what the owner’s own motivation of the purchase could possibly be. It takes an ordinary artist great talent, many years and lots of practice and persistence to spread a message through art. Purchasing a bespoke Rolls Royce enables any owner to express themselves too. Even more interesting is the way the vehicle turns into a symbol, which takes on different meaning depending upon its context, cultural attitudes and time. It is a reasonable imagination that designing such a vehicle must require a feeling for a sensibility beyond the modernist dogma’s of beauty in design. Experiences in multiple fields in the interior design scope revealed that the strongest interest and wish for future development is the field of interior architecture. The uprise of autonomous driving has truly shaken up the standards of the interior layout as it is known today and one can spot great potential to display lots of relevancy by a creative approach.

Relevancy
Personal experience throughout a year in the automotive industry led to the realisation that changes erupt radically on reaction forces as OEM manufactures highly benchmark their ideas against their competitors while the margins between them seem to be very small. The current interiors of the established brands are highly challenged by the upcoming names in the industry. Implementation of screens, minimal display of the underlaying components, digitalisation and connectivity are thus being integrated in radical pace. The design concept of the Rolls-Royce Hyperborea should set a statement by creating a holistic picture and a vision, which is not based upon a direct reaction to the current developments and therefore inspires the industry. A further notice is the affected self-confidence of the established manufacturers. As autonomous and electric driving is emerging and public transport concepts are changing, the car as developed and known throughout the previous century seems to has turned into an identity crisis. Currently a new
electric pick-up truck will outperform an expensive European Sports Sedan in pure acceleration. With the realisation of this several questions arise: Is there even a future for driving for joy? Or will a car become just a meaningless means of transportation? In that case, what will be the benefit of traveling on land?

The industry is confronted with a lot of uncertainties, but still anticipates the steps towards full autonomy. As this is unquestionably about to happen within the next decade, the design thinking for this thesis should address mobility and Rolls-Royce in 2040, when autonomous driving has already become the norm.

In 1967 John Lennon chose an automotive piece as his canvas. He commissioned his Rolls-Royce to be painted in exuberant decorated ornaments resembling a gypsy caravan. “He was certainly getting fed up with conforming at that time. It was a classic artistic statement.” - explains Gilles Taylor. It is interesting to see how a vehicle can be used as a canvas for expression.
Nowadays, Rolls-Royce endeavours a close partnership with artists around the world, creating special one-offs, art projects and unique pieces. What Lennon started has been taken to a next level. Current customers keep on customising their cars beyond the bespoke spectrum, creating extraordinary pieces of self-expression on the road. A contrasting idea for a future concept could be the motivation of building a car not for a statement on the road visible to the public, but for promoting and creating an experience which throughout a progressing journey helps the future user to shape their own way of expression. This is a possibility of reacting on predicted trends but offering a way of maintaining the special and distinct presence of a Rolls-Royce in the future.

For future design the relevancy of ethical aspects will grow in importance as well. The human, being surrounded and substituted by technology more and more, should be provided with designs esteeming civil liberties, leaving room for their actioning and quirks and still enabling or promoting delightful experiences that empower and give joy. As designers hold great power by their position of creating, they also hold great responsibility in ethical ways.
Process

RESEARCH

SCENARIO

ARCHITECTURE PROBES

DETAILING
PRESENTATIONS BACK AT BMW IN MUNICH

IDEATION FOR FINAL DESIGN

MODEL MAKING

REFINEMENT

ROLLS-ROYCE TEAM PRESENTATION

UMEA DEGREE SHOW
"We are our choices."
— J.P. Sartre
Future Context

Globalisation
Globalisation has become a familiar enough term in nowadays times. It appears in three categories interconnecting the globe: political, economic and cultural globalisation and with it derive benefits as well as difficulties. The challenges arising in the political section tend to over shine all the other positive effects globalisation brings with it, which are usually so easily accepted by everyone in our society as general benefits in every day life. Globalisation is an ongoing trend which interconnects regional societies, economies and cultures through a network of communication and trade spanning the globe. Factors such as rapid technology developments, enabling global communication, political developments, promoting the rise of democracies, developments in trade, forming new markets and exporting goods to all ends of the world, as well as transportation developments, making travelling faster, more frequent and more enjoyable, are driven by it. This also means topics such as protection of nature, climate change, security and human rights, to only name a few, have worldwide effects and should thus be addressed globally. Therefore those who would be future authentic leaders need to address this with care and consultation.
Furthermore, global travel and migration into international cities result in an increase of shared cultural values and whole new cultures come to exist in societies forming from people of different backgrounds, bringing with them foreign languages, traditions, art and life styles. Together they grow into a generation global, the future target group of tomorrow. (UKEssays, 2018; Zukunftsinstitut, 2019)

Connectivity
Connectivity leads the way into a smart future. As the demand for connectivity is accelerating so strongly, the trend leads towards a new level of constant connectivity where all aspects of life are connected. Forecasting imagines future citizens to live in smart buildings, interconnected in smart cities, commuting by shared smart mobility while enjoying various other connectivity services throughout their daily lives where everything is connected. This leads to demographic changes of societies, to new kinds of economies or changes in everybody's daily and work lives.
The next step towards connectivity of tomorrow has already been indicated by the development of AR and VR, which true capacity yet has to fully unfold. But the next generation technology is already underway. It will reach us in the forms of 5G, low Earth orbit satellites, mesh networks, and edge computing. By introducing new use cases such as connected automotive to smart manufacturing, immersive technology as well as helping VR and AR applications evolve to the next level, it will outperform existing communication capabilities and introduce a new level on the way towards constant connectivity. (Forbes, 2019; Think with Google, 2013; Deloitte, 2019)
<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>BUILDERS</th>
<th>BABY BOOMERS</th>
<th>GENERATION X</th>
<th>GENERATION Y</th>
<th>GENERATION Z</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEADERSHIP STYLE</td>
<td>controlling</td>
<td>directing</td>
<td>coordinating</td>
<td>guiding</td>
<td>empowering</td>
</tr>
<tr>
<td>MUSIC DEVICES</td>
<td>record player LP 1948</td>
<td>audio cassette 1963</td>
<td>walkman 1979</td>
<td>iPod 2001</td>
<td>spotify 2008</td>
</tr>
<tr>
<td>IDEAL LEADER</td>
<td>commander</td>
<td>thinker</td>
<td>doer</td>
<td>supporter</td>
<td>collaborator</td>
</tr>
<tr>
<td>LEARNING STYLE</td>
<td>formal</td>
<td>structured</td>
<td>participative</td>
<td>interactive</td>
<td>multi-moral</td>
</tr>
<tr>
<td>INFLUENCE / ADVICE</td>
<td>officials</td>
<td>experts</td>
<td>practitioners</td>
<td>peers</td>
<td>forums</td>
</tr>
<tr>
<td>MARKETING</td>
<td>print - traditional</td>
<td>broadcast - mass</td>
<td>direct - targeted</td>
<td>online - linked</td>
<td>digital - social</td>
</tr>
</tbody>
</table>

**Social Political Developments**

Social political developments reveal a most recent shift in the West. Brexit seems a good example to mention at this point where the British majority voted to leave the European Union - a happening that couldn’t have been imagined ten years ago. However, this shows an upcoming fragmentation which has been evident throughout whole Europe as well as China and with the election of Donald Trump has reached the United States too.

Main factors such as economics, where arguments against the EU being a dysfunctional economic entity arise, a general rise of nationalism and loss of sovereignty and the loss of trust in political elites are named with these recent events. (Forbes, 2016)

**Generation Alpha**

Generation alpha is the term for all children born after 2010 until 2025. They are the kids of Generation Y succeeding
GENERATION ALPHA

<table>
<thead>
<tr>
<th>Category</th>
<th>Social Markers</th>
<th>Music Devices</th>
<th>Leadership Style</th>
<th>Time Span</th>
<th>Ideal Leader</th>
<th>Learning Style</th>
<th>Influence / Advice</th>
<th>Marketing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Generation Z and considered the true Millennials as they are the first generation born and shaped fully in the 21st century. Born into nowadays technologically-connected environments, they are considered as true ‘digital natives’ who are most materially endowed and technologically literate so far. From a young age Alphas are widely exposed to multiple ways of digital media and many will have a digital footprint before they even understand the term. However, this means many aspects concerning their lives will have to adapt and are adapting to fit their needs. For Alpha children, knowledge is acquired by doing and experiencing. Therefore educational institutions will have to introduce latest technology in class to deal and support the different learning experience of this generation. Their educators will have to adopt this new approach to education, if they want to be able to cope with their demands. The Alphas are a generation completely at ease with health-related AI technologies. Them using health wearables to track many forms of health data is already widely accepted by their parents, shows a study conducted by the IEEE, and adapting to robots in surgery or in the assistance of the care for their elderly will be an easily acceptable step for them. Also the business sector has to adapt to radically new ways of interacting and communicating with iGen, compared to their parents. Their consumer experience will have to be seamless and integrated, with a personalised online experience. The Generation Alpha will be open and ready for new ways of interaction and experiences linking the digital life with reality. This will provides many new opportunities on the markets. (McCrindle, 2015; Interesting Engineering, 2018)
Tracing back human life through the centuries reveals that humans have always been wanderers, exploring the world. For thousands of years our distant ancestors travelled the lands as nomads before settling down and founding the first communities which over time grew into today's cities. Already back then there existed a more primitive human urge "beyond the many practical motives for travel - the pursuit of trade, warfare, pilgrimage, the search for new lands to settle or conquer - the simple impulse to find out just what lies over the next range of hills, to trace a river all the way back to its source or sail along an unfamiliar coastline, to explore ever further and deeper into the unknown." (Adams, Collins, Grant, Humphreys, 2017)

Christopher Columbus sets out to discover America
Ferdinand Magellan circumnavigates the globe
Wonder cabinets become symbols of status and identity

For thousands of years our distant ancestors travelled the lands as nomads before settling down and founding the first communities which over time grew into today's cities.
This urge to explore and discover the unconcealed has accompanied humankind up to the present. Whether for scientific purposes or for our personal understanding and enlightenment we keep journeying beyond the known. Throughout history each generation has contributed to novel means of travel and “the one thing it seems that humans will never do is stay at home.” (Adams, Collins, Grant, Humphreys, 2017)

The Origin of Travel

The early humans who first lived in caves and makeshift shelters traveled for food and water. Domestication and herding of animals led to necessary journeying from winter to summer pastures and back. Warriors undertook the next step, moving for booty and conquest. With the development of Mesopotamian cities national and international trade became
a motive for travel and exchange and known travel routs such as the Silk Road to the East came to exist. As possibilities of travel slowly increased - starting out by foot to the assistance of animals, revolutionised by the developments of the wheel and watercraft and further by proper road systems, road inns and road maps - travelling became more of interest not only for trade, but also priorly for adventure and exploration. Religion, too, became a motive for travel and people journeyed to sacred sites and holy places faithfully in the hope for personal wisdom and enlightenment. (Adams, Collins, Grant, Humphreys, 2017)

The Voyages of Learning
Transatlantic voyages such as undertaken by Christopher Columbus to discover new worlds and the circumnavigation of the globe by Ferdinand Magellan led to new understandings of the earth’s lands, population fauna and flora, which was greatly documented by scientists onboard. Travellers followed in the wake of great explorers bringing back items of wonder from foreign lands. Wonder cabinets showing these fancy and outlandish collectives from great tours became symbols of status and identity and signs of the growing curiosity of people about their world. Wonder cabinets of the wealthy exploring travellers, such as owned by Frederic Ruysch, grew into vast chambers of collected artefacts from foreign countries and are the predecessors of first public museums. (Adams, Collins, Grant, Humphreys, 2017)

The Business of Travel
The Grand Tour came up when the believe in the aristocratic society arose that there was no better way than finishing school and education of the young gentlemen than by visiting the major cultural capitals of Europe to discover the roots of western civilisation - which was believed lay in Rome - and in the hope they find enlightenment along the way. By then the notion of travelling for no other reason than self fulfilment had taken root. The development of steam ships and steam trains not only revolutionised the economies, but also the means of travel. The first transcontinental railways connected distant cities and made long distance journeys more efficient and comfortable and opened up new travel possibilities for a growing class of people with the money and the leisure time to indulge themselves. Inspiration for such journeys were partly ignited by poets and novelists who wrote about the romance of southern climate, ancient ruins and untamed landscapes. Early entrepreneurs spotted the potential for a profitable business in the vastly growing desire to travel and invented the offer of
day trips with handy guide books to accompany and lead the curious traveller throughout their journey. (Adams, Collins, Grant, Humphreys, 2017)

The Golden Age of Travel
With the first hotels blossoming from basic resting places to grand and often luxurious, destinations to host their guests in grandeur and comfort, the age of luxury travel started to flourish. The mapping of the oceans had resulted in save travel roots for transatlantic steamers which became bigger and ever more luxurious and more people voyaged greater distances around the world to discover the foreign lands, cities and the wonders of nature for themselves, enriching their lives with new experiences.

However, the travel in opulent carriages of the orient express, balloons, white star steamers, transatlantic liners, or the trans-seberian railway were luxury journeys still just available for a small class of society who were able to travel with style and comfort. The majority spent their travels tightly crammed together in the less luxurious spaces of the ships and trains. Between working men and women the believe arose that spending time communing in nature was beneficial for the soul. The increasing smog in the industry wretched cities led to a movement that encouraged them to head for the open
Travel for the Multitude
True changes only came with World War II, which threw most of the world in turmoil, but triggered changes in society, transportation and travel and resulted in the slow development of affordable holidays for the middle class as well. Shortly before the launch of Henry Ford’s car Model T - supposed to be “the car for the great multitude” - evened the path for individual and affordable travels by car. This led to road trips which became a synonym for freedom and romance and ever more families took to the road on vacation.
A revolution in aviation took place when the first commercial airliner took to the skies and within a short period of other upcoming cheap airlines, pressuring the prices until available for a greater majority of people, package holidays abroad with inclusive flights set a new benchmark for global tourism. (Adams, Collins, Grant, Humphreys, 2017)

Leaving the Earth
A further step ahead was taken when the first satellite was launched and sent into the orbit, which ignited the race to space. Advances in technology made it finally possible to not
only investigate the abysses of the oceans but set off into space. The first foot on the moon led to the first manned space station and to voyaging even further in the unknown universe. Revolutionising travel hasn’t come to an end. New concepts about travel on earth such as the Hyperloop as well as voyager program with suborbital aircrafts or plans to establish human settlements on Mars keep pushing the boundaries. A close look at the legacy of travel reveals that the drive in humankind to ever discover new and explore the unknown is still as fresh as at the first day. Whether for scientific knowledge or for personal growth and enlightenment, humans always strive to outgrow and overcome themselves and search for new experiences. Ever new advances in technology and opportunities enable the individual to see more of the earth, to discover its origin and to help finding their place in it. This shows that the desire to travel is as strong as ever. (Adams, Collins, Grant, Humphreys, 2017)
The Grand Tour

The term Grand Tour was firstly introduced by Richard Lassels in 1670 in his book “Voyage to Italy”. Throughout the 17th and 18th century a whole travel industry emerged, guidebooks were written and traveler guides - so called Cicerones - became a norm on such a travel tour throughout Europe’s cultural capitals. The main actors were young British men (fig. 14) and in some cases also women of the upper classes who conducted a cultural tour of Europe as regular part of their aristocratic education. The aim was to endeavour a formative cultural experience by undertaking a rite of passage. They would pursue the deeper stories of art and architecture beyond the apparent form, volume, line and colour. The travellers were typically in their begin twenties and accompanied on their tour by a chaperone. While the main goal was to become enlightened men by being exposed to the cultural legacy of
classical antiquity and the Renaissance of continental Europe, many adventures occurred during the travels. Travellers documented their embellished accounts abroad and their encounters with the unknown cultures to recite them for the less fortunate who stayed at home and to present their enlightened and grown minds on their return as ready to take their expected positions in society. (Black, 2011)

Subtle Guiding and Supervision

Undertaking a travel as the Grand Tour could mean a tour of some weeks, up to many months and a year or longer, depending on the route and the set city stops along the way. It was the usual for the young men of rank or wealth to travel with a chaperon, who was travel companion, guardian and scholarly guide in one, escorting them along their journey and keeping them save. (fig. 16) If affordable, servants along with a cook or coachman were accompanying them as well, ensuring their comfort thought the journey as much as possible. In the luckiest situation the travel could start by riverboat along the waterways as far as Paris or Basel, but from there it meant travelling by coach and partly on foot in sections such as crossing the Alps at the great and challenging passes. The whole travel itself between the appointed stops, where they would stay for several weeks when finally having arrived, was by no means always an enjoyable and easy part of the tour, rather tiresome and difficult. Innkeepers and postilions would often charge extravagant prices for lousy food, dirty lodgings and often tired out horses. Even hostelries were overcharged and often unkempt and arranging a carriage or chaise to continue the tour could be troublesome negotiation and turn out uncertain. Having assistance at hand in form of an already knowing Cicerone in such situations was an indispensable necessity for the young and inexperienced and kept the save from the worst. Rough sea travels and badly attended roads could make the travel seem very unattractive and disappointing. However, the deeply held conviction remaining in their minds about the beauty of the European capitals and the reminder of their Cicerones that the Grand Tour was about learning and not purely leisure and enjoyment, kept them enduring the tough travel and anticipating the experiences of every new destination. (Colletta, 2015)

A Holistic Journey

A regular tour would lead the young man and his entourage from England across the English Channel through Belgium into France heading for Paris. Popular stops along the way were Ostend, Calais or Le Havre. (Wikipedia, 2018) Paris, however, was the main destination within France, a capital of fashion, culture and music. Besides must-see sights and must-see books, the Grand Tourists spent a generous amount of money on purchases of works of art, as proof of their learning and sophistication at their return, but also on clothes
and entertainment, such as visits to the theatres and general glamour at cafés admiring singing-girls and musicians. A whole new wardrobe and accessories of the latest French couture was a must upon entering Paris in order to be able to enter society in proper rank and style and enjoying the strolls along the Boulevards in authentic flair and accomplishment. Lessons in French, dancing, fencing and riding were very common to appeal in the sophisticated society with courtly behaviour and fashion. (fig. 15) (Colletta, 2015)

The tour would lead from France over Switzerland, across the Alps into Italy, with stops generally taken in Turin, Milan, Florence, Pisa, Padua, Bologna and Venice until completing the trip in the capital. (Wikipedia, 2018) Rome crowned the Grand Tour with its Classical culture and aesthetic perfection, of which knowledge was an essential part of the aristocratic education. The focus was on art, architecture and painting and studying the history of the Renaissance and Baroque. Roman antiquities, portraits in Classical settings and particularly commissioned reproductions of favoured paintings were bought as collecting views became a very popular habit amongst the travellers. The emphasis on learning, education and knowledge was much stronger in Rome than in Paris, where leisure time, entertainment, fashion and luxury was the main focus of interest. (fig. 17) (Black, 2011)

Later in time, the more adventurous, who were in favour of a yacht, sailed on to Sicily, Malta or even as far as Greece. (Wikipedia, 2019) But the usual undertaken Grand Tour would lead as south as probably Naples to discover the archaeological sites of Herculaneum and Pompeii and indulge in the study of music. From there their holistic journey would take the young enlightened and sophisticated back north across the Alps into the German speaking parts of Europe. Innsbruck, Vienna, Berlin, Dresden and Potsdam were popular destinations before heading through Holland back to the home country of England. (Colletta, 2015; Black, 2011)

**Travellers are their own Masters**

A Grand Tour would have a certain direction with fixed destinations in capitals such as Paris or Rome and Vienna, but the overall trip was quite individually planned and stops chosen where the Tourists and Cicerones thought of as most educational and enlightening. The individual constellation of
the travels were also recognisable in the purchased items brought back home, relating to today’s souvenirs but in a much more extensive range including portraits, paintings of landscapes and architecture, clothes, antiquities and other accessories and curiosities not found at home. Many items such as the umbrella were imported and introduced in the home country through such tours. (Colletta, 2015)

The Legacy resonates Today
The Grand Tour as a scholarly event might seem less of a necessity in today’s globalised world, but the concept behind, which means travel for the discovery and experience of new cultures, personal education and development and growth, continues to resonate and is very relevant up to today.

When transportation at some moments became less struggle-some and one could bridge wider distances through steam travel, cars and airplanes, at some moment travelling became very much less authentic than those of the Tourists and modern scholars. It was available to more and more people introducing it to grow into a mass market. Traveling to “real” places designed for tourists such as Disneyland, grand hotel resorts or the Italy and Paris of the Las Vegas strip gave and mean to give the tourists all they want to see with the least necessary inconvenience. However, not every traveller was and is satisfied by the specially designed reproductions and pre-chosen and planned experiences. The (anti-)tourist wants to experience the original and searches for authentic routes and places, which might be less easy to achieve with so many people continuously travelling today, but shows the existing desire for real experiences that enable personal growth and enlightenment. (Colletta, 2015) These travellers want to truly connect with the visited places to broaden their understanding and enrich their minds aside the daily life and might also collect their very own version of items along the way speaking of their experiences and memories when back at home. This is, after all, not that different form the motives of the early Grand Tour and shows that its legacy lives on to the modern day and it is quite evident that it continues hold a lot for the future ways of travelling.
The modern human is continuously on the move. Whether during the daily and job life or for leisure, people continuously keep to travel. This makes the tourism branch one of the biggest booming sectors offering a great variety of short day and weekend trips, long-distance travels, air travels, cruises, city tours, business trips and many more and is ever adapting to the continuous/ ongoing global and demographic changes. (Zukunftsinstitut, 2011) Continuing on a long history of travel, mega trends and future analyses keep estimating and forecasting those changes and aim to predict people’s altering interests and expectations in travel.

**Megatrends**
As in-depth streams of change, mega trends reveal trends which shaped all levels of society and continue to shape them in future. Economy, politics, science, technology and culture are affected slowly over time but therefore fundamentally and for long-term. (Zukunftsinstitut, 2018) Several relevant trends are listed in the following, affecting and relating to the overall theme of the research.

**Globalisation**
This trend is easily connected to the troubles of politics still
struggling with the efforts of bringing together global processes with their national, out of date mechanisms, which are changing rather slowly. However, the global population is for some time already right on their way to the future of the 21st century. Global generations travel, connect, meet and interact in innovative, creative, global cities, which thus form junctions of regional, national and international streams of the financial, goods and service sectors. A direction to a competitive but at the same time cooperative and multi polar order for the global world is progressively addressed. (Zukunftsinstitut, 20xx)

**Individualization**

This is a central principle of the Western World’s cultures which increasingly reaches its power globally. Being a complex mega trend, it forms the base of the social structures and has reached its momentarily peak within the wealthy nations. It bears a new code for society by affecting the system of values, consumption patterns and the everyday culture. At its core individualisation relates to the freedom of choice and is closely interwoven with urbanisation, gender shift and connectivity. (Zukunftsinstitut, 2018)

**Connectivity**

The principle of networking dominates the social change and makes this trend the most influential of todays time opening up an new chapter in social evolution. Digital communication services change the everyday life fundamentally by reprogramming socio-cultural structures and thus leading to new lifestyles and behavioural patterns. The range of connectivity reaches from augmented learning and virtual reality to business eco-systems, car sharing, autonomous driving, seamless mobility on to artificial intelligence, smart cities, smart devices, digital health and reputation and further to privacy, social networks, a newly formed “omline trend” and many many more. (Zukunftsinstitut, 2018)
#JOMO
The Joy of Missing Out is a counter trend to FOMO (fear of missing out) and relates to the opposing impact of constant over-connectivity of the individuals’ lives and thus acts to highlight the enjoyment of being mindful of the moment. It is a younger trend related to the one of healthy or slow living as well as connectivity. With their tagline “You need to get lost to find yourself” a US and UK based travel company intends to assist the travellers to disconnect from their everyday lives and by only providing them with key information about their travels, wish them to truly get lost and thereby find back to themselves, to self-awareness and a relaxation in fully felt experiences away from connectivity. (Euromonitor International, 2018)

Silver Society
The global population ages and continuously reaches a higher age while at the same time remaining in better health much longer; This leads to a total new phase in life after the usual time of entering retirement. It grows much longer and introduces a new chapter in life apt for a whole range of alternative lifestyles and self-realization. The trend shows a new mindset evened for a society, which precisely due to its change in age becomes more active, vital and explorative and a particular target group in the future of travel. (Zukunftsinstitut, 2018)

Generation Y & Z
The Millennials, representing the rapidly growing segment of generation y, have their focus on exploration, interaction and emotional experience. The trend expects their lifestyle requirements to be further met with the accelerated implementation of digitalisation, as technology is essential for this demographic. Empathy and customer connection is a strong focus of the value chain towards this generation. The impact of generation Z on tourism however, is yet to become apparent. Also going by the terms iGen, Click ’n go children or Screenagers, this generation is believed to be totally different from generation Y “as they already have higher access to information, a more dynamic lifestyle, and a higher level of education, an accelerated adoption of change and faster spending.” (Horwath HTL, 2015)

Future Traveller Tribes
Based on a study of the Future Foundation this paragraph reveals a possibility of understanding tomorrow’s travellers which will shape the future of travel. The six traveller tribes are defined by the fundamental motivation for their travel. Some people travel because they have to be somewhere; others travel for personal growth; others for the social capital they gain. The Simplicity Searchers value the ease and transparency in travel planning and are very willing to outsource the detailed
planning as well as extensive research. The Cultural Purists see their travel as the opportunity to immerse themselves in a new culture, fully detached from their every day home lives and thus experiencing new ways of living.

The choices of the Social Capital Seekers are shaped by their desire to take maximal social reward from their travel as they see that to be well-travelled is an enviable personal quality and digital media is used to enrich and inform their experiences while they always are aware of their being watched by online audiences.

Reward Hunters strive for truly extraordinary, and often indulgent or luxurious ‘must have’ experiences which is linked to both physical and mental self-improvement and is also a proper return on their investment.

The choices of Obligation Meeters are more restricted as they are bound to some or other objective. A most significant group of these are business travellers which might arrange or improvise other activities around the main purpose, but meeting their core needs is the first priority.

The Ethical Travellers address their choice of travels by allowing their conscience to guide their decision making on one way or another. Environmental concerns, political ideals or heightened awareness of the ways in which their spendings contributes to economies and markets may influence their choices.

These categories show the diversity that lead to choices of travel. However people can combine one, two or several of the tribes as motives for their traveling and therefore inspirational sources, the degree of personalisation, touchpoint devices as well as the types of travel experiences are generally changing with every customer and ask for a variety of offers to choose from. (Future Foundation Amadeus, 2015; Frost & Sullivan Amadeus, 2015)

Motivation to Travel

The primary motivation leading to choose to travel, to choose a particular holiday, at a certain destination and at a certain period in time is quite complex, as it is strongly related to
a person’s individual personality, perception, interest, past experiences, status and lifestyle. Generally summarised those can be classified by the following: I: psychological reasons - relaxation, sun tan, exercise and health; II: emotional motives - nostalgia, romance, adventure, escape, fantasy or spiritual needs; III: personal conditions and personal development - raising the level of knowledge, learning a new skill; IV: the experience of culture - sightseeing, experience of other cultures. Further motives to be noted are leisure, recreation, business and professional reasons, health and religion or pilgrimage. However, it is important to notice that the motivation for travel is unlikely to be influenced by a single factor. It is rather a combination of factors and furthermore changes over time in response to changes in the circumstances of each individual’s personal life. (Cactus Tourism Journal, 2011)

Change in Expectation
An alteration regarding the expected quality of the travel and holiday within the luxurious section is witnessed and foreseen to be continued and with it comes a change in people’s expectations as experiencing customers. A desire to be entertained and stimulated rather than just pampered is on top of the list. While pampering was often a top priority before, new expectations for more active holidays and experiential journeys have emerged. Customised services which are highly personalised have been an increasing global demand for the past few years. Combined with the simplicity and transparency of the products and services, it is a factor especially valued among the younger generations of travellers. Diversity of the travel experiences well as an increasing need for authenticity, environmental care and social responsibility shifts to higher levels of relevancy. The growing use of the Internet and social media leads to the expectancy of seamless connectivity throughout the journey and final destination. Further focus of the traveller’s expectations lies on quality instead of quantity and includes a high level of comfort, which also expresses itself in an emphasis
on space and a high quality of materials in the furniture as well as guaranteed safety, security and privacy along the journey. (Horwath HTL, 2011)

Experiences and Travel Destinations
Wildlife and nature are the new frontiers of tomorrow. Together with absorption and discovery of art, history and culture they form the key themes for successful and satisfying future travel. Trend analyses reveal that continuously more travellers favour off-the-beaten-path destinations. They are seeking large natural spaces and new regional cultural experiences. The travel therefore may focus on a specific vacation experience, or may combine cultural, leisure and, if of interest, recreational activities. Activities local to the visited areas are of special-interest and are in league with adventure and wildlife. Furthermore, the geographic origin of outbound tourists is changing, and long-haul travel is increasing. This means within the European range amiable travel destinations remain Germany, Holland, the U.K., France, and Italy. Russia is one of the fastest growing outbound regions. Swedish Lapland and Iceland as well as the polar regions Greenland, Nunavut and Antarctica are becoming the new favoured travel destinations for experiencing and witnessing nature reserves and wildlife. (Horwath HTL, 2011)

Now as well as in the future time will be a precious commodity which demands for all elements of travel working seamlessly, from the initial planning process, to the journey, the accommodation, tours up to the final return. Together with authenticity and content, knowledge, real relationships, customisation and personalisation are redefined as ruling principles and expected in order to create long lasting experiences throughout a rich experiential travel. A study by the Zukunftsinstitut reveals that the travel of the 21st century will equally be consumer good as well as self-awareness trip and “You might talk about the way you travelled to your destination the way you now talk about being vegan, or having a Tesla car.” (National geographic, 2018)
The Quest for Enlightenment

A State of Bliss
Bliss is regarded as a state of complete happiness or serene joy. Most people experience it early in their lives and from then on strive for moments of bliss, as life seems and feels so much easier and manageable, everything might seem possible and their world feels like a happy place. It is a state of pure happiness that reaches the soul and radiates to the world around. One feels utterly joyful and is at the same time aware of that state of happiness and therefore it pushes this emotional condition even more.

This state of being 'aware' or 'awake' has a very strong root in the religion of Buddhism. The belief centres around 'bodhi', which is the knowledge or wisdom, or awakened intellect of a Buddha. The etymological origin of the abstract noun 'bodhi' derives from the verbal root 'budh-' with the meaning of 'to awaken, to know, to wake, wake up, be awake, to recover consciousness, to observe, heed or attend to'. In correspondence with the verbs 'bujjhati' and 'bodhati', the meaning is 'to become or be aware of, perceive, learn, know, understand, awake'. Its literal meaning in English is closest and best summarised by the simple term 'awakening'.

A term used in the western world which describes these Buddhist concepts of insight, knowledge, the blowing out of disturbing emotions and desires and the subsequent freedom or release is 'enlightenment'. The term 'enlighten' was first used in 1835 and became very popular throughout the second half of the 19th century due to the translations of Max Müller, who wrote of 'enlightenment' as a means to capture natural religious truths. Illumination was another way of translation but enlightenment became the dominating one in English literature up to today. (Study Buddhism, 2019; Wikipedia, 2018)

The Buddha
The translated meaning of the term ‘Buddha’ is ‘the awakened one’ or ‘the enlightened one’. It is a title for someone who is awake and has attained Nirvana or Buddhahood. The title historically derives from Siddhartha Gautama, Buddha, who has lived 563 BC in Lumbini and who is believed to be the supreme Buddha of the present time and the founder of Buddhism. However, the title ‘Buddha’ can also be used for someone who has achieved enlightenment as a human being, before or after Gautama.

According to Buddhist teachings to deserve the true title ‘Buddha’, as Siddhartha Gautama carried it, means to reach full awakening, the liberation of one’s spirit, a state of purity and completeness. It means unbounded unfolding of the mind in terms of ‘Prajña’, the wisdom as insight in the true nature of existence and ‘Karuna’, infinite compassion and self-compassion. With the awakening one attains Nirvana and leaves the circle of Samsara, the circle of reincarnation. This state has to be achieved by oneself, on one’s own efforts. Only then can one continue in teaching the Dharma to others.
and is called a Samyaksambuddha. Two other forms are the Pratyekabuddhas, those who achieved Nirvana by themselves but do not teach, and the Arhat, those who reach Nirvana by following the teachings of the Buddha. (Wikipedia, 2018)

The Story of Siddhartha Gautama
In Buddhist tradition it is believed that Buddha's birthplace was Lumbini, the present-day Nepal. He grew up as a prince in Kapilavastu as a son to his father Suddhodana and his mother Maya. Their family name was Gautama and the son received the name Siddhartha, which means 'he who achieves his aim'. During the birth celebrations a hermit gave a dual prediction that the baby would either become a great king or a great holy man.

His father wished for Siddhartha to become this great king and therefore tried to shield him from religious teachings and from knowledge of human suffering such as sickness, age and death. He grew up in wealth and comfort and at the age of sixteen was married to his cousin Yasodhara, who soon gave birth to a son.

Regardless of his father’s attempted efforts, on secret strolls outside the palace, the prince came in contact with an old man, a dying corpse and an ascetic. Depressed by these discoveries of reality he started to strive for a way of overcoming ageing,
sickness, and death. After having spent his first 29 years of life at the palace, he felt that material wealth was not life’s ultimate goal. He set out and left his known life at the palace behind to begin the life of a mendicant.

Upon his way, the life with the ascetic in great self denial and discipline as well as living as a holy man with the monks, could not help him escape the inevitability of death, old age and pain. He became a student of yogic meditation and of yoga and achieved high levels of meditative consciousness, but both times he felt unsatisfied by the practice and moved on. However, his practice of Dhayana let him realise that the training of the mind would ultimately lead him to a state of perfect equanimity and awareness. He realised that neither the extremes of self-indulgence not self-mortification but a path in between both -the middle way - was the way to awakening. Siddhartha came to sit under a pipal tree, now known as the Bodhi tree - the tree of awakening, and vowed never to arise until he had found the truth by reflecting on his experience of life. It is said, that after 49 days of meditation, at the age of 35, upon his awakening Siddhartha Gautama realised complete insight to the four noble truths, thereby attained liberation from Samsara, had attained enlightenment. He became known as the Buddha or ‘Awakened One’. The story continues, that Buddha was unsure whether to
teach the Dharma to others, but Brahma Sahampati, a god and heavenly king in Buddhism, convinced him to teach the path to enlightenment, which is a subtle one and often deep and hard to grasp. He traveled to northern India, where he set in motion what Buddhists call the Wheel of Dharma by delivering his first sermon to five companions. Together with him, they formed the first sangha, the company of Buddhist monks. (Wikipedia, 2018; BBC, 2002)

In Touch with the Spirit
Today’s everyday lives are characterised by a constant sensory overload, as so many impressions, noises and data flood people everywhere. Whether through radio in the subway, bus or tram on the way to work, at work, in the supermarket or at home, through TVs, media in buzzing cities or though the constantly ongoing activity on smart devices, daily live can simply feel chaotic at moments in the 21st century. As a result many people don’t even realise that they actually crave for something other than their constant attachment to the blue screens in their pockets, which are always consulted but just not truly satisfying. (Bauce, 2019)

What they are lacking is some quiet time to centre themselves and reconnect with their mind and spirit, to calm down and truly relish in a moment of actual self care. But finding that greater sense of self and connection is obviously very challenging with the busy schedules everyone follows and by constantly seeing and updating on others activities on social media and striving to compete. (Healthy-Magazine, 2015)

But realising that being in touch with ones spirit and taking some time for self care, can help and benefit with all ones other activities and relationships. How else is it explained that trends such as yoga and meditation are so highly popular at the present time. People realise the benefits after giving themselves the time to experience the process of connecting with themselves and their spirits and crave for continuous practicing as the rewards are so promising.

A very fitting opinion is the one stated by Wim Hof who says: “In the Bhagavad Gita they say, “The mind under control is your best friend, the mind wandering about is your worst enemy.” Make it your best friend, to the point where you can rely on it. Your mind makes you strong from within. It is your wise companion. The sacrifices you make will be rewarded. Life doesn’t change, but your perception does. It’s all about what you focus on. Withdraw from the world’s influence and no longer be controlled by your emotions. If you can grab the wheel of your mind, you can steer the direction of where your life will go.” (Gaia, 2019)
A Journey of Self-Evolution

Achieving Nirvana or Enlightenment is a journey of self-evolution. In Buddhism exists a tremendous amount of variation and different teachings, giving varying explanations about the terms of Nirvana and Enlightenment. This already points to different methods of achieving it and the nonexistence of a step by step instruction leading to a final moment on entering enlightenment. It is rather important to understand and accept that it is a process to achieve a state of mind where you are one with your spirit, aware and content of yourself and not misled by any disturbing emotions that are deceptive as well as aware of the entire network of cause and effect of everything. As already mentioned above, the fundamental meaning of Nirvana in Sanskrit is extinguishing or blowing-out. The blowing out of sufferings and its causes, of pain and unhappiness and the unsatisfactory part of happiness, which gives the impression of never being enough. Disturbing emotions lead people to a confusion of reality. The mind automatically makes thoughts appear in ways that don’t correspond to reality, like projections which deceive perception. People only see what happens at the very moment, not what happened before in the past nor what might happen in the future. Therefore what happens in the mind seems to be real.

An example is the impression of having an inner voice in the head, which represents an inner ‘me’, continuously talking, commenting and worrying. This me seems to always be the same -as a kid, a teenager or an adult, but is somehow appears detached from experiences and the body or personality itself, solely watching, observing and commenting. This can easily lead to disturbing emotions and attributes resulting in insecurity. In order to counteract this feeling, efforts are made to gain security, to make the ‘me’ confident.

One strategy to counteract insecurity, is attachment, a desire for material things and greed. Another strategy could be aversion, annoyance and anger. Everything that might feel threatening, the ‘me’ wants to get rid of, because it might result in annoyance or anger while trying to hide insecurity. A third strategy is naivety. Anything that is a little bit too difficult just gets shut out.

The result is, that people act on the basis of these disturbing emotions, attachment, anger and naivety, in both constructive or destructive ways. Both ways however, don’t truly lead to a good result, they might cause more problems or may never be satisfactory enough.

The cause of these problems is that separated inner ‘me’. It causes the ups and downs in life that alternate and go on and on and unsatisfactorily on. From a Buddhist point of view, this is what activates rebirth, the continuity of these struggles in one life following into the other.

What Nirvana wants to achieve, is an end of the ongoing ups and downs in life, a liberation from it. Nirvana gets rid of the belief in these deceptive appearances that the mind
creates and believes in as reality. Buddhism describes what is experienced after this stage is, that people feel they exist and continue to exist, even after reaching Nirvana. The difference to the state before lays in the realisation of the inner ‘me’, the body and the experiences happening are all one, happening to the true me, are the true you. This is the real secret, there is nothing to make secure.

It is believed that the feelings and happiness experienced after achieving Nirvana are experienced differently from the ordinary happiness. It is a lasting happiness that stays unaffected by any condition.

The motivation to achieve Nirvana, liberation, as it is rooted in Buddhist believe, is called renunciation. It is the motivation to be totally free, free from disturbing emotions, free from continuous struggles, free from rebirth. Nirvana, however, is only the first step.

The second step then is Enlightenment. Those are not the same, are also two different terms in Buddhist belief. The motivation for achieving Enlightenment is known as ‘bodhichitta. Nirvana is the step towards being free from ones own suffering, Enlightenment is the step towards helping others as well.

In order to help others, the motivation of Enlightenment means to continue on the path. To continue on it until the moment when entering, for example, and elderly home and seeing the sick elderly not only as the now existing senile people in wheelchairs and therefore getting frightened by
them and closing off, but seeing them as people who had a whole life, a childhood, a family, a profession and have just entered another step in life. By understanding all the causes and backgrounds, the entire network of cause and effect of everything, one becomes omniscient, a Buddha.

As a liberated being having achieved Nirvana, one is only aware of this while meditating. As a Buddha, one is aware of how everything exists all the time, whether in meditation or not. This stage is based on love and compassion - love as the wish for others to be happy; compassion as the wish for them to be free from suffering and its causes. (Study Buddhism, 2019)

**Encouraging the Spirit**

Throughout the process leading to enlightenment a various amount of practices can encourage the mind in understanding and connecting with the spirit and help develop the habit of ‘awakening’. These practices can be exercised by everyone leading to achievement after achievement while climbing up the ladder.

Very extensive practices that need to be carried out in depth and therefore need time, nourishment and patience are Yoga and Meditation. Yoga combines movement, meditation, and spiritual teachings for a practice that benefits both mind and body in growth and health. Meditation helps to calm the mind and when the mind is calm, the intuition is clearer. However, calming the mind is one of the hardest things to achieve and
besides practicing meditation what calms people is very individual and personal. (Bauce, 2019) Listening to a certain style of music, particular lighting or incense and other scents can create a calming environment and ambience. Others might feel a calming notion by talking a walk or exercising in nature, listening to themselves and their surroundings. (ScienceDaily, 2008)

Energy practices have also been used a long time by spiritual individuals to balance their energy and access their spirit. The energy coming through to the exterior is often referred to as an aura and can influence the perception of practicing people by their fellow humans. (Bauce, 2019)

Exercising the mind by taking a break from dull occupations such as mindlessly watching a favourite streaming show and actually putting ones mind into an active state by selecting a book and reading, easily sparks the actually hungry mind, inspires and promotes empowerment. A good way to regain the sense of self and empowerment is to connect with likeminded people. They have an inspiring effect and spark a feeling of belonging and thus propel each other further. (Bauce, 2019; healthy-magazine, 2015)

What is called ‘journaling’ is also a way to help people focus, reduce stress and calm their minds and reflect on happenings, motivations and wishes and by writing them down, the mind is cleared and thus enabled to track patterns and find to solutions or achieve goals. (University of Rochester, 2019)

Taking actively care of ones body and mind is a very important part along the way. Whether by granting oneself some quiet time to calm and reflect, disconnected form the surrounding volume, or by actively taking care of physical health through sports to boost ones endorphins, leading to a euphoric and powerful feeling, both ways equally lead to mental wellness. (Bauce, 2019)

A total state of bliss is often achieved when spending and experiencing time in nature. A breeze and a breath of fresh air easily awaken the spirit and can ease the inner feeling of ‘needing more’. Longer exercises like a hike or a kayaking tour or camping in nature create a deeper impression that stays within and promotes the spirit. (Nature, 2014) “When we interact with nature, miraculous things can happen. Whenever you go beyond the rigid patterns of thinking, challenging yourself, you can receive the bounty of experience from hard nature.”—Wim Hof (Medium, 2018)

It is easily noticed that many of the described practices and exercises to maintain wellness and push on the path to enlightenment go hand in hand, lead to one another and are connected with each other. It shows therefore that there exist many different ways to walk the path towards enlightenment and leaves everyone the individual decision on how far to go and how much further to deepen their experiences and practices.
**Corollary**

Even very in depth study of Buddhism doesn’t exactly constitute the Buddha’s awakening, it is rather unknown. It can only be speculated or expected that the above stated knowledge of practices, leading to attain various stages, and the combination of mindfulness and Dhyāna led him through the process until achieving a state of enlightenment. This shows that there doesn’t exist a particular formula, that enlightenment cannot be forced, only practiced throughout a variety of balancing exercises to stimulate the mind and can only be found within oneself. The research also revealed that the motivation behind the practice of Buddhism and enlightenment is the aim to achieve a constant and content feeling of one’s own happiness as well as the strive for doing the same for others. This is not only the base of Buddhism and other religions but also the basic structure of ethical principles.

Though the research furthermore arises that every human being lives in pursuit of their own happiness and modern science examines this striving for some time already very thoroughly. *(Harvard Health Publishing, 2017; Scientific American, 1996)* The American constitution even states the Pursuit of Happiness to be an unalienable Right besides Life and Liberty. *(Time, 2013)* Since attaining true enlightenment as Buddhism describes it, is a lifetime mission and a full-time job, not everyone has the possibility and time to walk this path in depth. The essence of the Buddhist doctrine teaches us though, that every human being needs to look for content and happiness within themselves before spreading it to others and thus magnifying it. Everyone needs to believe and trust themselves and be content in order to awake and truly realise and live the happiness. Coming back to the variety of practices, this emphasises how varied moments of happiness can be experienced within differential
The story of Buddha states the final awakening to enlightenment occurred throughout a meditation session in nature under a tree. Wim Hof as a practitioner of his own version of controlling the mind believes as well in the force of nature bringing people to new levels of self-awareness and causing moments of bliss.

Within nature people can draw on their own strengths, tune out and focus on themselves and truly live the moments and experience euphoria, the happiness and live the bliss.

The conclusion of the study on enlightenment lies in the following: everyone can pursue the path of enlightenment and can individually decide how intensely and thoroughly it is practiced in order to draw positive energy from it to encircle themselves as well as others with it. Therefore moments of awakening can be daily experienced by all of us and everyone can attain the freedom of spirit by deliberately choosing to cultivate self-compassion, kindness, joy and wisdom. A variety of exercises and states of mind can be followed individually as a group, at home, at a place unlinked to prior experience or in nature. It is a constellation of practices that relates to every individual personally but holistically strives for the same result.
Interior Architecture Benchmarking

Currently we are living in a time of change regarding mobility. The mega trends in the previous chapters have indicated a big shift in the consumers’ context and behaviour regarding travel. Most of the cars today are powered by fossil fuels and are privately owned. Socially these vehicles function as an extension of the driver’s personality by creating an avatar. In the past luxury cars have been seen in some cases as symbols for status or success. Since the early 20th century this model has been dominant in western society. According to Deloitte 80% of vehicles in US cities will not be privately owned by the year of 2035. In this projected future people will buy less cars and the status symbol of ownership will fade away. Deloitte projects that people will be more willing to pay for rides and thus the vehicle’s interior architecture will increase in importance. The main product value will be the experience of the journey and therefore the traditional architecture of a driver centred cockpit will fade away and make room for newly rethought interior architectures. (Deloitte, 2019)

The next generation of vehicles will be created with a new approach, enabled by all emerging technological developments demanding new joyful travel experiences. It is worth to take a look at the recent concept cars of the competitors’ brands. In 2018 Volvo revealed their vision of an autonomous car. Their approach was to create a vehicle that would replace short-haul air travel. The exterior of the car, a streamlined monolithic box, drew less attention. Chris Maillard from CarDesignNews described the exterior as “fairly common for autonomous vehicle concepts”. Three unique interiors grabbed the attention by each portraying a scenario of a commute, enabling a seamless continuity of people’s day-to-day activities instead of interrupting these, be it work, leisure or sleep. (CarDesignNews, 2018)
The NIO EVE was presented in 2017 as a Vision Car Experience. The fixed interior layout expresses an enhanced feeling of openness and care. The car is equipped with new technology such as AI, which is translated to a token called NOMI, representing the heart of the car and reviving it with a quirky personality.

The ICONA Nucleus is the synthesis of futurism and a human-centered mindset. The autonomous vehicle’s interior enables the passengers to experience a mobile living space. Details such as a variety of seating areas, plants and refreshments emphasise this homelike experience.

With these concept cars companies aspire to be socially responsible through the use of technology not just by benifitting the natural environment but also humanity.
Research Sum-Up

Throughout the research several aspects became evident which influenced the design of the Rolls-Royce Hyperborea for 2040. Looking back upon the human history of travels and glancing into its future reveals the relevancy of the topic. Even generation alpha, regarded as the future target group, won’t lose their curiosity for discovering the unknown. Alphas are seen as creators, they inspire to inspire and, similarly as their ancestors, a holistic journey fit to their own desired constellations will spark their creativity and shape their future experiences.

With the uprise of technology the human will become more and more obsolete, which is predicted to result in an increasing search for self meaning. Enlightenment as a way to guide people finding their meaning in life seems fitting and gaining relevancy. With luxury tourism being the fastest growing industry, autonomous driving changing the layout of the interior and the possibilities of interaction within the interior and the increasing search for enlightenment many opportunities for diverse design scenarios and with it many new possibilities for Rolls-Royce open up whiting this future context. While the current Rolls-Royce is built to reflect their owner’s personality, the future Rolls-Royce could be built for an experience. An experience that assists people to develop and shape their own expressions.

- Showcase an interior architecture vision
- Stay relevant for the car industry
- Create a physical model of the vision
- Use VR for research & refinement purposes
- Stay happy and healthy
Ethical Approach

Today’s designers and engineers couldn’t have more responsibility. They are positioned at the forefront of technological developments which have such great impact on all levels on society. Social networks enthral people within webs, algorithms know people better than their life partners and autonomous cars are entrusted with peoples lives - there’s an urgent demand for an ethical understanding in design which respects the human being and their nature. Ind.ie, a small British company based in Malmö, Sweden, developed a manifesto which respects human rights, effort, and experience and tries to raise awareness on the issue of ethical design.

Based on Maslow’s hierarchy of needs, but applied to design in an ethical manner, the design manifesto builds the foundation of future design for a diverse society.

Human Rights
Technology that respects human rights is decentralised, peer-to-peer, zero-knowledge, end-to-end encrypted, free and open source, interoperable, accessible, and sustainable. It respects and protects your civil liberties, reduces inequality, and benefits democracy.

Human Effort
Technology that respects human effort is functional, convenient, and reliable. It is thoughtful and accommodating; not arrogant or demanding. It understands that you might be distracted or differently-abled. It respects the limited time you have on this planet.

Human Experience
Technology that respects human experience is beautiful, magical, and delightful. It just works. It’s intuitive. It’s invisible. It recedes in the background of your life. It gives you joy. It empowers you in a visceral way. (ind.ie, 2017)

Implementation
Throughout the project the aim was to create an experience that would trigger not only the human consciousness but also its subconsciousness. Designing an experience for the spirit was a great link throughout the project with the research sum-up, goal and ethical approach as well as the Rolls-Royce key values and heritage.
Architecture Probes

PROBE I
This design probe explores the possibilities of a flexible interior lay-out. The double seated bench is mounted to a swivel base with a traditional cog mechanism. The mechanism resembles the authenticity of the movement within the interior space. This rotary element was chosen for further development in the interior concept.
PROBE II
The second design probe focusses on displacement by combing physical travel and alternate realities. Resembling the idea of the original Grand Tour, the learning through travel, the occupants can bring the less fortunate back at home along with them virtually on their embellishments abroad. This idea would resonate into a radical lay-out of having a half open interior reflecting into an augmented window. It was decided, however, to not explore this probe further.
The third probe explores the possibilities of mimicking a yacht. The vehicle features two doors giving the rear passengers an immersive experience outside, while luxury is obtained inside the vehicle. A brand new placement of windows is needed and an extreme low silhouette is a must. The probe sparked the idea to explore the old archetypes such as the landaulet and sedanca de ville. These elements together with the Z displacement in driving modes were taken for further exploration.
Another round of exploration followed after the design probes. At this stage the concept of the Revival of the Grand Tour was established as a fully serviced journey provided by Rolls-Royce. The ideation of a coachbuild journey specialized vehicle followed. The illustrations above show the base chassis for such vehicle in its bare bones. Inspired by the origin of coach building, a resemblance to carriages was explored, which resulted in a reversed A- and C-pillar design with a prominent B-pillar.
Interior Zones

Being a recurrent revival of the Grand Tour, the quest for enlightenment undertaken in the Hyperborea is a journey of learning in terms of self evolution. Throughout that journey the travellers are stimulated in multiple ways to reach a state of enlightenment. A big role of stimulation is assigned to the interior of the car which offers a dynamic lay-out inspired by design probe I. By swivelling into different modes, the occupants can experience a variety of positions that should encourage diverse states of mind to stimulate the body and soul to open up and enter enlightenment and experience the journey to its fullest.
The Journey
The quest for enlightenment undertaken in the Hyperborea challenges the travellers’ learning by triggering self evolution. The travel through and the prolonged stay in a variety of habitats aims to evoke the journey towards spiritual awakening. There are four main geographical terrains, the quest covers UK Country Side, Continental European Urban, Nordic Nature and the Artic Environments. These together with the three interior modes stimulate the travellers to get in touch with the inner self, to see and understand the bigger picture. The Grand Tourists are free to explore the tour in their own pace while switching between the three modes to their own liking.
At the beginning the Grand Tourists travel to Goodwood following the invitation for the Artic Experience. At the Rolls-Royce factory the travelers get familiar with the vehicle and the Rolls-Royce heritage by the use of private tutoring. Hereafter the occupants get to explore continental Europe through carefully picked and curated activities and sights. The tourists get introduced into creating their own constellations of preferences and thus creating their own tailored adventure. Stage three is the introduction to a prolonged stay in nature. By taking the ferry from Denmark to Norway the tourists get
mentally prepared for a sense evoking travel through nature. The Grand Tour will be fully serviced by Rolls-Royce and their partners including an overnight experience on the ferry. It is an important element to connect the Grand Tourists with the local culture and nature. A curated prolonged stay in nature follows where the Grand Tourist. It is in stage four where travellers will truly experience the miraculous experiences from nature, challenging the occupants on an adventure seeking for the northern lights with the main destination at the Artic Circle. The Grand Tourist will experience a variety of adventurous throughout on this self formative experience, aiming at a greater joy than materiality can bring.
The goal of the exterior design was to explore a brand new definition of presence. The exterior features large facetted windowshields which create both highly reflective surfaces from outside, yet fully transparent from the inside. These glass panels are treated with radical angles thus creating an aggressive tumble home. The angles are created in a way to ensure enough space when rotating and switching between interior modes.
RATIONAL - SECURE - HUMAN
The hard surface treatment focusses on creating a crisp, yet human defined expression. Contrasting to a fully minimalistic modernist approach, the lines have a sense of human randomness in direction. The surfaces resonate a very rational yet human execution to create a sense of recognisability and trust.
Design Development

The three modes define the interior concept. A large gear was placed and kept in the middle during the ideation phase to keep the authentic feel and gestures of the platform’s transformation. Later on in the process this cog was designed to a more fitting element, the base of the interior seating. Together with the interior, exterior concepts were created to proof the idea of the changed seating lay-out. A big inspiration was the navel industry, both for functional lay-out solutions as well as stylistic elements throughout. Shown above is the original mechanical gears that inspired the interiors gesture. The first sketches were made with the approach of designing a boat-like cabin with rear-facing passengers.
The ideation followed regarding the frame encapsulating the space. This frame was created through two conventional rear-end cars stuck together. Hereafter a sense of direction was added. The B-pillar has taken over the functionality of C-pillar by shielding off the occupants and giving privacy and a sense of protection.

The frame had the right proportions, though still needed a lot of adjustments. The look and feel resonated a hostile feeling while the edgy execution did not resemble the high-end quality of a Rolls-Royce. Various loops of refinement followed.
The round disc features interior gears to emphasise the rotary nature and capabilities. An exploration followed, concentrating on generating the optimal proportion between leg space and sitting area. Numerous concepts were explored including breaking the circle graphic as one wholeness. The seats are mounted on a soft cushioning base. To emphasise the freedom of movement in the vehicle, the base was treated separately from the backrest. A study of cut mono volumes followed. The centre of the platform features a middle console where the occupants can operate the car to switch between driving modes.
The rotary platform of the Rolls-Royce Hyperborea is the most prominent and important feature of the car. This element represents the authentic transformation between mindsets and thus interior interactions and experiences. The circular element is kept as a whole to emphasise the symbol of movement. The tub, frame and platform create the interior space while the features are spread out over the interior to ensure a pleasing experience for the occupants.
Inspired by yoga practices, the positions were tested in a brief ergonomic study. Remarkable positions were the yellow tinted images, as they did not have a beneficial posture. The stretched leg position was experienced as straining. An alternative bent posture was more comfortable and better suited. The seats feature a chaiselongue gesture while creating the opportunity to sit in a relaxed manner unknown for prior Rolls-Royce models. A graphical Rolls-Royce heritage sweep was explored to generate new kinds of open seating. Various loops of iterations followed. Pain points were to design a seat that would work in all three modes. The balance between creating open seating and enclosing the occupants with the three modes was very challenging.
Humans in Interaction
The Rolls-Royce Hyperborea explores the boundaries of transportation design by offering a fully serviced travel, the revival of the Grand Tour. The design explores a new holistic experience envisioning a long-distance journey for enlightenment purposes. The Hyperborea explores interior architectures and the possibilities that come along with autonomous driving. A flexible interior layout offers three different modes with unique features to stimulate the occupants in creating a lasting visceral experience. By swivelling into the different modes, a variety of seating positions encourage diverse states of mind to stimulate the travellers’ body and soul to open up and enter a state of bliss.
Reflect Mode

Taking New Positions

Viparita Karani, posture from yoga benefits for the body and mind.

The leaned back position in reflect mode is created to stimulate the blood flow on the long distance journey. It enables a pleasing posture to meditate and reflect upon the experiences of the travel. Additional features such as an incense maker create a full visceral experience and a pleasant environment to enjoy the feeling of reconnecting with one’s inner self, step by step towards enlightenment.
PROVISION OF ACCOUTREMENTS

Heart of the interior key attributes for the daily journey.

The connect mode is accompanied with the possibility of journaling thoughts and happenings throughout the tour. Elements like a modular travellers suitcase, the dashboard storing daily accoutrements or an integrated incense holder/burner generate a relaxing atmosphere and stimulate the occupants in their mindsets and promote a strong connection to the journey.
Transformation

THERE IS NO PURE FORM OF ENLIGHTENMENT

There is no formula for a final result, it is a process.

The quest of enlightenment in Hyperborea is undertaken by stimulating the changes of mindset while experiencing different environments. In the previous modes the travellers are facing against the direction of travel, the road is not of great importance. The focus of the Grand Tourists lays on observing and connecting consciously with the nature. The change to immerse with the surroundings is where the travellers rotate in their seats towards the road focusing on driving. The order of the modes is tailored to the travellers’ endeavour towards enlightenment.
The engage mode enables the travellers to experience the joy of driving. A push of adrenalin from speed and the stark closeness to the landscape builds a bond between the traveller and the surrounding nature.
THE JOY OF TRAVEL IS IMMATERIAL
The Grand Tour, a self formative experience.
Reflection

From the very start the thesis felt like a sprint race. Having made a very detailed schedule at the beginning, one could easily predict the time pressure that would be encountered throughout. Dealing with such a limited time one gets the tendency to make up for it in some way. I feel very proud that throughout the thesis I have never chosen an easy way out and was always open to explore ideas that also had a big probability of failure or incorporated a large workload. Throughout the entire project I have kept the end result open and was more focussed on the journey and the steps in between. I realised that the moment one is not willing to explore the path where one can fail or is too focused on designing a means to an end, it will result in a loss of creativity. I am very happy that I could avoid those situations as much as possible despite having to deal with many limitations.

I learned how to take decision at the right time and to stay convinced of the prior choices. Daniel Starke, my mentor at Rolls-Royce, taught me an important lesson: “pick your battles”. In interior design it is very hard to focus on all the elements at the same time. Even more with a concept project and having a limited timeframe one has to pick certain elements of design to finish in a very detailed manner and others to let go or keep open for further interpretation. This was a great lesson and I was very lucky to have Daniel coach me on this throughout the project. He used this technique for his feedback and there were certain aspects of the projects, where I felt, I was working completely autonomously and others, were I was getting regular check-ups and feedback. I was given lots of freedom to develop my own expression, solutions and ideas for Rolls-Royce, while getting feedback on extracting the most out of my input.

Working on my project autonomously and doing all the tasks alone such as budget planning, project management, color&trim, 3D modelling, model making (engineering) and visualisation made me realise how many roles there are in a design process aside from the geometry design. Having prior experience where designers would split the work among themselves, the interaction during the thesis with colleagues from other departments made me realise the immense team effort in building a car. Having completed all the stages by myself, I have gained a lot of empathy for the people working in these departments. I have had a chance to get a glimpse of the challenges of their working field and was in touch with professionals for feedback. This was a very valuable experience which I will cherish in my design career when working further with these departments.

Having to organise sessions for input from experts and fellow designers made me realise that there is a big human social factor that is needed to create great designs in automotive companies such as BMW and Rolls-Royce. All the colleagues
are very busy and one has to respect their time and priorities. It takes great social skill to organise and get the most out of your colleagues.

The topic of travel was one where I learned a lot from the research. Having explored the motives and history of travel enabled me to put the automotive industry in a wider context over a greater timespan. The industry is getting ready for a big shift and is very open for new ideas. Having a better understanding of the human’s nature and fascination with travel made me stronger as a transportation designer beyond the automotive field. It made me also realise that with the upcoming shift, brands such as Roll-Royce which encompass the emotional aspect of travel, will gain relevance. Ferdinand Porsche already predicted: "The last car that will be built will be a sports car."

Enlightenment, living with a greater awareness, has been a topic of my personal interest outside from design. I spent many hours researching people who are striving for a paradigm shift in society. The topic has brought me a lot of empathy and insights on how to approach challenges. For example, I realised that optimism is the ability to focus and work hard in tough times rather than saying ‘it will be ok and it will all be fine’. These learnings were very useful for this project and I am very happy to carry them out to the upcoming ones.

I am feeling very grateful to have completed the thesis for the Rolls-Royce Design team. The colleagues at Rolls-Royce and BMW have been very inspiring and I am looking back with great feeling on the results and learnings. Having completed priorly the internship at BMW interior design (ED-B11) I have had the great pleasure to spend a year at my two most favourite brands in the industry. Getting in touch with this vibrant design culture and working among the designers, has been a childhood dream and ambition throughout my career. Completing this dream with the sponsored thesis and a placement in the design studio, was truly an amazing way to finish my academic phase.
References

Literature & Magazines


Online Sources

Future Context


The Grand Tour

Future of Travel and Tourism

Retrieved from: https://www.sciencedaily.com/releases/2008/05/080520110415.htm

Retrieved from: https://www.urmc.rochester.edu/encyclopedia/content.aspx?ContentID=4552&ContentTypeID=1


Retrieved from: http://content.time.com/time/magazine/article/0,9171,2146449,00.html

**Interior Architecture Benchmarking**

**Ethical Approach**
Ind.ie. (2017). Ethical Design Manifesto
Images & Graphics

1. NASA/JPL/University of Arizona - Mars, Salty Water
   https://mars.nasa.gov

2. Julia - Playing with Shadows

3. Sunil Raju - Rolls-Royce Photography
   https://sunilraju.com/rolls-royce

   http://mashable.com/2015/06/25/john-lennon-rolls-royce/

5. Frank Lewis - 50Cent cruises in his RR
   https://www.dailymail.co.uk/tvshowbiz/article-4774198/50-cent-cruises-extravagant-custom-Rolls-Royce.html

6. Lowie Vermeersch - Beautiful Mobility TEDxDelft Talk
   https://www.youtube.com/watch?v=oPDsww3hpE

7. STRUT London - Jil Sander Campaign Dress

8. J.P. Sartre - We are our choices
   https://thisonelife.blog/tag/choices/

9. McCrindle - Generations Infographic

10. McCrindle - Generation Alpha infographic

11. Mary Evans Picture Library – Queen Mary Ship
    https://www.amazon.de/Mary-Evans-Picture-Library-Kunstdruck/dp/B072L76RMD

12. Yahoo - Pan-Am Foudn Juan Trippe

13. Hyperloop Transportation Technologies - The Hyperloop
    https://www.orlandoweekly.com/Blogs/archives/2018/05/21/a-hyperloop-connecting-orlando-and-tampa-along-the-i-4-may-be-in-the-works
14. Pompeo Batoni – Portrait of Thomas Dundas
Aske Hall, Richmond, Yorkshire, Private Collection
https://www.flickr.com/photos/renzodionigi/4160174971

15. Pompeo Batoni – Portrait of Sir Watkin Williams-Wynn, Thomas Apperley, Captain Edward Hamilton
Amgueddfa Cymru – National Museum

16. Philip Wickstead – The Grand Tour Group
Dining Room at Springhill

17. Johann Zoffany – The Tribuna of the Uffizi

18. Carl Spitzweg – Engländer in der Campagna
https://www.mayfairgallery.com/blog/history-london-antiques-market

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

20. Justin Leighton – Rolls-Royce Artic Trip by Harry Metcalfe

21. Pxhere – Sea Coast Water Ocean Horizon
https://pxhere.com/de/photo/76655

22. Nityananda Atman – Meditaion, Realization, Liberation
http://elmisattva-nonduality.blogspot.com/2013/01/meditation-samadhi-realization.html

23. The Shiny Squirrel – Collage
https://theshinysquirrel.tumblr.com/post/130875188658

24. Manolo Franco – Lofoten Norway
https://pixabay.com/photos/aurora-borealis-lofoten-norway-1032522/&
Rolling Stone – Wim Hof Method
https://www.rollingstone.com/culture/culture-features/wim-hof-says-he-holds-the-key-to-a-healthy-life-but-will-anyone-listen-196647/

25. Nikki Graziano – Found Functions
http://landezine.com/index.php/2010/05/found-functions/
26. Pxfuel – Fjord rock formation

27. Ind.ie – Ethical Pyramid
https://2017.ind.ie/ethical-design/

28. Ralph Steiner – Mechanical Principles
Anthology Film Archives
https://www.youtube.com/watch?v=N4WA1gclJio

29. Jeppe Hein – Mirror Works
https://trendland.com/jeppe-heins-mirror-works/

30. Joan Jonas – Mirror Piece I
https://dagouchi.co.vu/post/39858656598

31. Galpin Archives – Rumble Seat Musting by Galping

32. Vaudrey Miller – Yacht designed by Philippe Starck

33. Ruth – Illustration of Carriage
http://ruthie822.blogspot.com/2010_09_01_archive.html

34. Tentsile/Flickr – Treehouse by Tensile

35. Åke Eson Lindman – Villa Överby by John Robert Nilsson
https://www.archdaily.com/449606/villa-oberby-john-robert-nilsson-arkitektkontor

36. Goh Iromoto – Dogsledding in the North

37. Rolls-Royce Cars Palm Beach – Spring Awakening Dinner Menu
https://www.rolls-roycemotorcars-palmbeach.com

38. Mich Elizalde – Architecture
https://unsplash.com/photos/sJ3EKMvEofQ

39. iStockphoto – The Shroom with a view
40. The Wedding Chauffeur - 1972 Rolls-Royce Silver Shadow
http://www.theweddingchauffeur.co.uk

41. Griffith Observatory - Big Dipper constellation of stars
https://www.wired.com/2015/03/gifs-show-constellations-transforming-150000-years/

42. Tetyana Kochneva - Boy jumping into water

43. Pxhere - Norway Fjord
https://pxhere.com/de/photo/1043160

44. Elena Morelli - Mountain Reflections

45. Fontana Sports - Fly Fishing
https://www.fontanasports.com/info/blog/fishing-on-a-fly-march-report/

46. Pxhere - Architecture Structure
https://pxhere.com/en/photo/1174087

47. Wim Hof - When we interact with nature quote
https://i.pinimg.com/originals/ec/ab/a5/ecaba5e71ee253be8a972fc40fabd7a5.jpg

48. Pxhere - Beach Winter Night Atmosphere
https://pxhere.com/de/photo/678107 &
Pxhere - Landscape Mountain Snow Winter
https://pxhere.com/de/photo/1053027

49. Yaya - Artic Tromsø, Norway
Pxhere - Globe Tourist Attraction North Cape
https://pxhere.com/de/photo/762255

50. West of West - Blended Primitive II
https://westofwest.com/monoliths

51. Ralph Steiner - Mechanical Principles
Anthology Film Archives
https://www.youtube.com/watch?v=N4WA1gcJJo
52. Robert Stadler Paris – Typecasting by Vitra and Robert Stadler
https://www.instagram.com/robertstadlerparis/

53. Khodi Feiz – Typecasting by Vitra and Robert Stadler
https://www.instagram.com/khodifeiz/

54. Architect and Design – Hotel Villa Honegg
https://www.instagram.com/p/BQptsM1AM9q/

55. Tim Chen – Mirror Wireless Charger
https://www.behance.net/gallery/70262917/MIRROR-WIRELESS-CHARGER

56. Michael Venera – Viparita Karani

57. Vitra Museum – Alexander Girard on the La Chaise lounge chair

58. Christian Coigny – Sittings by Vicki Goldberg

59. &Tradition – Jaime Hayón Catch Lounge Chair

60. Michael Venera – Viparita Karani

61. Delta Light – Tweeter X P 60 930

62. Collin Hughes – Cavalier Essentials by Taylor Pemberton
http://www.thisismirador.com/cavalier/

63. Classic Design Italia – Isamu Noguchi Coffee Table

64. Xavier Padrós & Ester Molera – Quiet Wood by Emiliana Design
http://emilianadesign.com/portfolio/quiet-wood/

65. Artisan Boatworks – Watch Hill 15 by N.G. Herreshoff
https://www.artisanboatworks.com/classic-designs/sailboats/watch-hill-15
Appendix

Degreeshow Poster
### Time Schedule

<table>
<thead>
<tr>
<th>W3 - JUN</th>
<th>W4 - JUN</th>
<th>W5 - JAN/JUN</th>
<th>W6 - FEB</th>
<th>W7 - FEB</th>
<th>W8 - FEB/MARCH</th>
<th>W9 - MARCH</th>
<th>W10 - MARCH</th>
<th>W11 - MARCH</th>
<th>W12 - MARCH</th>
<th>W13 - MARCH</th>
<th>W14 - MARCH</th>
<th>W15 - APRIL</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SUNDAY</strong></td>
<td><strong>ARCHITECTURE IDEATION</strong></td>
<td><strong>21</strong> Stockholms - Umeå UMEA KICK-OFF PRESENTATION</td>
<td><strong>22</strong> ARCHITECTURE IDEATION Tutoring thesis</td>
<td><strong>04</strong> IDEATION</td>
<td><strong>10</strong> Design Development Checkpoint Dissertation</td>
<td><strong>25</strong> Design Development Tutoring thesis</td>
<td><strong>06</strong> Design Development</td>
<td><strong>18</strong> Update Dissertation Implement Design Feedback</td>
<td><strong>21</strong> INTERNAL MATURE PRESENTATION</td>
<td><strong>26</strong> Design Refinement Final 3D model</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>MONDAY</strong></td>
<td><strong>ARCHITECTURE IDEATION</strong></td>
<td><strong>15</strong> UMEA KICK-OFF PRESENTATION</td>
<td><strong>16</strong> INTERNAL CHECKPOINT FOR ARCHITECTURE Tutoring thesis</td>
<td><strong>05</strong> IDEATION</td>
<td><strong>11</strong> IDEATION Concept Tutoring thesis</td>
<td><strong>19</strong> Design Development</td>
<td><strong>26</strong> Design Development Tutoring thesis</td>
<td><strong>05</strong> Prepare for Umeå Trip</td>
<td><strong>10</strong> Checkpoint Dissertation Implement Design Feedback</td>
<td><strong>24</strong> Tuning thesis Design Refinement Final 3D model</td>
<td><strong>09</strong> Design Refinement Final 3D model</td>
<td></td>
</tr>
<tr>
<td><strong>TUESDAY</strong></td>
<td><strong>ARCHITECTURE IDEATION</strong></td>
<td><strong>17</strong> UMEA TRIP Umeå - Munich</td>
<td><strong>18</strong> IDEATION</td>
<td><strong>12</strong> IDEATION</td>
<td><strong>12</strong> RESEARCH &amp; CONCEPT FREEZE</td>
<td><strong>20</strong> Design Development</td>
<td><strong>27</strong> Design Development</td>
<td><strong>06</strong> Design Development</td>
<td><strong>13</strong> UMEA TRIP</td>
<td><strong>21</strong> Implement Design Feedback</td>
<td><strong>21</strong> Design Refinement Final 3D model</td>
<td><strong>20</strong> Design Refinement Final 3D model</td>
</tr>
<tr>
<td><strong>WEDNESDAY</strong></td>
<td><strong>ARCHITECTURE IDEATION</strong></td>
<td><strong>19</strong> IDEATION</td>
<td><strong>13</strong> IDEATION</td>
<td><strong>13</strong> IDEATION</td>
<td><strong>13</strong> RESEARCH &amp; CONCEPT FREEZE</td>
<td><strong>21</strong> Design Development</td>
<td><strong>28</strong> Design Development</td>
<td><strong>07</strong> Design Development</td>
<td><strong>14</strong> UMEA MIDTERM PRESENTATION</td>
<td><strong>20</strong> Implement Design Feedback</td>
<td><strong>28</strong> Design Refinement Final 3D model</td>
<td><strong>08</strong> Design Refinement Final 3D model</td>
</tr>
<tr>
<td><strong>THURSDAY</strong></td>
<td><strong>ARCHITECTURE IDEATION</strong></td>
<td><strong>20</strong> IDEATION</td>
<td><strong>24</strong> IDEATION</td>
<td><strong>24</strong> IDEATION</td>
<td><strong>24</strong> RESEARCH &amp; CONCEPT FREEZE</td>
<td><strong>21</strong> Design Development</td>
<td><strong>28</strong> Design Development</td>
<td><strong>07</strong> Design Development</td>
<td><strong>14</strong> UMEA MIDTERM PRESENTATION</td>
<td><strong>21</strong> Implement Design Feedback</td>
<td><strong>28</strong> Design Refinement Final 3D model</td>
<td><strong>08</strong> Design Refinement Final 3D model</td>
</tr>
<tr>
<td><strong>FRIDAY</strong></td>
<td><strong>ARCHITECTURE IDEATION</strong></td>
<td><strong>21</strong> IDEATION</td>
<td><strong>25</strong> IDEATION</td>
<td><strong>25</strong> IDEATION</td>
<td><strong>25</strong> INTERNAL MIDTERM PRESENTATION</td>
<td><strong>22</strong> Design Development</td>
<td><strong>29</strong> Design Development</td>
<td><strong>08</strong> Design Development</td>
<td><strong>20</strong> Design Refinement Final 3D model</td>
<td><strong>29</strong> Design Refinement Final 3D model</td>
<td><strong>09</strong> Design Refinement Final 3D model</td>
<td></td>
</tr>
<tr>
<td><strong>SATURDAY</strong></td>
<td><strong>ARCHITECTURE IDEATION</strong></td>
<td><strong>26</strong> IDEATION</td>
<td><strong>26</strong> IDEATION</td>
<td><strong>26</strong> IDEATION</td>
<td><strong>26</strong> INTERNAL MATURE PRESENTATION</td>
<td><strong>23</strong> Design Development</td>
<td><strong>29</strong> Design Development</td>
<td><strong>09</strong> Design Development</td>
<td><strong>20</strong> DESIGN REFERENCE FINAL 3D model</td>
<td><strong>29</strong> Design Refinement Final 3D model</td>
<td><strong>09</strong> Design Refinement Final 3D model</td>
<td></td>
</tr>
<tr>
<td><strong>SUNDAY</strong></td>
<td><strong>ARCHITECTURE IDEATION</strong></td>
<td><strong>27</strong> IDEATION</td>
<td><strong>27</strong> IDEATION</td>
<td><strong>27</strong> IDEATION</td>
<td><strong>27</strong> INTERNAL MATURE PRESENTATION</td>
<td><strong>24</strong> Design Development</td>
<td><strong>30</strong> Design Development</td>
<td><strong>10</strong> Design Development</td>
<td><strong>27</strong> Design Refinement Final 3D model</td>
<td><strong>30</strong> Design Refinement Final 3D model</td>
<td><strong>10</strong> Design Refinement Final 3D model</td>
<td></td>
</tr>
<tr>
<td>-------------</td>
<td>-------------</td>
<td>-------------</td>
<td>-----------------</td>
<td>-----------</td>
<td>-----------</td>
<td>-----------</td>
<td>-----------------</td>
<td>-------------</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>Process Gateway</td>
<td>Design Refinement</td>
<td>Final 3D model</td>
<td>33</td>
<td>Design Refinement</td>
<td>Final 3D model</td>
<td>36</td>
<td>Before Model for Model Making</td>
<td>37</td>
<td>Model Making</td>
<td>38</td>
<td>Model Making</td>
</tr>
</tbody>
</table>

Master Thesis by Victor Andrean 96
Dimensions

LENGTH 5800MM
CLEARANCE 220MM
HEIGHT 1600MM

IN-MB MOTORS
GREENHOUSE
FOLDABLE REAR ROOF STRUCTURE
IN-MB MOTORS
TRAVELERS CLOSET
ELECTRIC BATTERIES
Physical Model - Parts

_BASE BOX
CNC Milled
Groves Milled
Medium Density
PU Foam

_EXTERIOR TOP
CNC Milled
High Density
PU Foam

_FLOOR
CNC Milled
Groves Milled
High Density
PU Foam

_DOORS
2-Times, 4-Piece
SLA 3D-Printed

_DASHBOARD
4-Piece
SLA 3D-Printed

_SEATING ROTARY BASE
10-Piece
SLA 3D-Printed

_ENGAGE MODE BACK-REST
SLA 3D-Printed

_FOLDING ROOF COVER
1-Piece
SLA 3D-Printed

_RR LOGO
1-Piece
SLA 3D-Printed

_REFLECT PILLOW
1-Piece
SLA 3D-Printed

_FRONT ENCLOSURE
5-Piece
SLA 3D-Printed

_RR SOE
1-Piece
SLA 3D-Printed

_PHYSICAL MODEL
BUILDING MASTER PLAN
Physical Model - CMF

- BLACK GREY
  RAL 7021 - MATT

- STONE GREY
  RAL 7030 - MATT

- FROZEN GREY METALLIC
  BMW U83 - MATT

- GREY BEIGE
  RAL 7006 - ROUGH MATT

- CHAMPAGNE QUARTZ
  BMW X08 - HIGH GLOSS

- BLACK GREY
  RAL 7021 - MATT

- GREY BEIGE
  RAL 7006 - ROUGH MATT

- *TRAFFIC ORANGE
  RAL 2009 - MATT

- GREY WHITE
  RAL 9002 - MATT

- BLACK GREY
  RAL 7021 - Rough Matt
*after have been painted according the original plan, color Traffic Orange has been repainted in Grey Beige
Model Making Process

- 3D modelling in Maya
- Adjusting tweaks in Maya and adding seams
- FDM 3D test prints to check proportions and detailing on a lower scale
- Preparation for model making delivery: 3D model and milling curves
- Adding logos and final details in Rhino
- **Rolls-Royce Hyperborea**
WET SANDING SLA PARTS

PHYSICAL MODEL ARRIVED AT LOCATION IN UMEA