AHO _ Arkitektur- og Designhogskolen i Oslo
Pre-Diploma _ Master in Architecture

Touristic Surf Route in Portugal

Mónica Pereira da Silva

Indice

II. Chapter 1 - Introduction

1.1. Conceptual Framework:

The design of new tourism products can provide new business opportunities through innovation in tourism. In this sense, the surf is increasingly approached from the perspective of tourism, although studies on the potential benefits for local development are recent, they intensify the need to implement strategic guidelines for the sustainable development of touristic surf destinations.

Portugal has excellent local resources, including the quality and diversity of waves for surfing. However, some lack of support infrastructure and other type of challenges must be overcome.
Portugal already has a big list of touristic national routes that are proving to be very popular and essential for the development of certain regions. Thus, a surf route could also be a proposal with potential to promote the basic conditions of the surf tourism, as well as to provide national and international visibility to specific regions of Portugal.

This thesis aims to investigate the possibility for a Portuguese touristic surf route along the coastline and develop in detail a section of this route, in a specific region of the country that shows optimal surf characteristics but poor urban planning and lack of infrastructure. Such intervention could enhance the surf experience for both the professionals and the local community.

1.2. Work Structure:

- National scale: (Portugal)
- Conditions and contributions of creating a surf route in Portugal;
- The way surfers move in Portugal;
- Definition of a national route;

- Regional scale: (Peniche)
- Territorial and landscape analysis;
- The surf practice in Peniche;
- SWOT analysis of the surf tourism in Peniche;
- Existing infrastructure;

- Site scale:
- Study of existing infrastructures and connections;
- Creation of a supporting program and infrastructure for the surfers;
- Definition in detail of a section of the route;

1.3. Main objectives:

- To research about the surf potential in Portugal;
- To evaluate the conditions to implement a national surf route;
- To promote the national and international recognition of a specific region through a national surf route;
- To promote coastal areas by rethinking the territory, reshaping landscape and creating new infrastructure.
- To develop and define in detail one section of this route in a specific site.

1.4. The Relevance of the study:

The motivation for this topic came from the knowledge that Portugal already has several defined touristic routes, some of them as long as the whole country, that have been extremely successful for many years. The reading of news and articles about surf, where it is mentioned the social-economic and touristic impacts of this sport discipline, led me to observe that there are no defined surf routes in Portugal despite of the sport extreme popularity in the country.

The extensive Portuguese coastline is asserted by its unique conditions for the surf practice, attributing to Portugal, as a surf destination, a new european centrality.
The surf tourism in the country can give a lot of competitive advantages in the way that surf contributes to the reduction of seasonality, since Portugal has all the conditions for the surf practice during the whole year.

"When we speak about surf in the Portuguese beaches, we speak much more than just a sport, we evoke a lifestyle and a relationship with the ocean, that for us, portuguese, is natural and ancestral."
(Silva, in SurfTotal, 2011).

The project focuses on the contribution of a surf route in Portugal, with a detailed proposal of a section of the route in the city of Peniche.
The choice of Peniche comes from the emergency of sea related activities, where the role of surf is distinguished. We can see this through the events that take place in the city during the whole year, through the market and business niches implemented and also for the visible commitment of the City Council of Peniche for the wave sports.

"Surf must be viewed as an opportunity and as a contributory factor for the consolidation of an image of Peniche rooted in the sea strategy." (Câmara Municipal de Peniche, 2009 e, p.121)

In this sense, more than just a sport, surf assumes, more and more, an economic, social and cultural importance. The surf industry has a enormous growth potential not only for the estimated number of practising sportsmen (nearly 10 million surfers in the hole world) but also for the almost 10 billion dollars per year on surf related businesses.
Surf tourism in Portugal obviously has a lot of potential. The investigation of the local conditions for the surf practice and the research of the surfer profile and way of life, together with the existing resources and a new structural project, will help to develop a touristic product that is sustainable and viable, that can answer to the needs of the region and bring different communities together like surfers, tourists and locals.

"Surf is one of the sectors that can merge a sustainable growth, strengthening new opportunities for the sea economy and bringing people together." (Adão e Silva, 2009).

III. Chapter 2 - Research

2.1.1. Brief Surf History:

The origin of surf is still unknown. But it is known that surf is closely related to the Hawaiian culture.
In the second half of the XVIII century, surf was the common sport of Hawaii, revealing a such good knowledge of the waves that allowed them to build surfboards.
In 1778, James Cook, the British explorer, discovered the Hawaii island that, because of this, became a transfer point for european ships. The arrival of the white man to the islands brought a lot consequences that decreased the local population and the culture, including surf that by the middle of the XIX century was disappearing.

In 1900, Hawaii became officially part of the United States of America. Most of the Hawaiian population was living in Honolulu. The Waikiki beach had many surfers and the outsiders that were arriving were starting to have a lot of curiosity about surf.
In 1907 the first world surf organization was created. The presence of outsiders resulted in the publicity of this sport, and because of the first surf demonstration in California by George Freeth, a surfer of Waikiki, surf emerged in south of California.

Later on in 1957, the subculture of big wave surfers was born, in the Waimea Bay sea where surfers like Ver Greg Noll surfed 7 meters waves. Surf as a radical sport was born.
Surf growth was exponential after 1959, engaging more and more young people in the sport. It appeared movies and music about surf and new technology was invented like the foam in the manufacture of boards and rubber suits.

Meanwhile the first surf magazine was created and since then many other magazines appeared creating an enormous impact in the development of the sport.
The competitive surf culture was developed by surf competitions, and in 1964, in Manly, the first world championship of surf was held.

A new concept was born: "The search for the perfect wave". The search for a surf undiscovered or non populated, became the essence of surf. The surf trips became very popular and their adventures through the hole world were published by thousands of surf magazines what led to the discovery of new surf places.

The increasing ambiental awareness in surf in the middle of the 60s culminated with the movement: Save Our Surf. An organization that was worrying about the access to the beaches, oil spills, construction of harbours, water pollution, etc. In the years after other organizations emerged with the aim to protect nature because of its close relation to surf.

In the beginning of the XX century, surf was everywhere associated through publicity of every kind of brands and companies, inclusively in the internet, with the expression "surf the web".
These days, surf magazines are all around the world and are authentic surf guides promoting tourism and redefining completely surf trips. Because of this, it exists a diversity of accommodation only for surf, surf camps and surf schools. There are websites specialized for watching in real time the beaches and the description of the surf conditions, at any hour, in any place.

2.2. Surf Tourism:

The surf tourism appeared in the 70s and 80s, accompanied by increment of marketing that transformed this sport in a lucrative market.
The surf industry has a big evolution and economic importance in the days of today, especially in the surf-wear market. The communication and promotion of the surf industry is made by publicity and by the surf media, basing surf as an objectified merchandizing, but the reality is still the same as when surf started: the man and the wave.

If we look to the history of surf we can see that in the 70s and 80s the surf travels gain expression and the search for the perfect wave determined the surf tourism phenomenon. We can conclude that the act of surfing and the act of traveling go hand in hand with each other.

"Surf tourism is the one that evolves people that travel to domestic places for a period of time no longer than six months or for international places for a period of time no longer that twelve months, that stay accommodated for at least one night, where the active participation in surf is the main motivation for the choice of the place of destination." (Fluker, 2002, quoted by Dolnicar & Fluker, 2003a, p.3).

This definition is referring to surf as a sport, and it refers to the active participation, but we can't forget that the sport activity also includes the passive component: the visitor spectator that likes to observe the surf practice, for example, traveling abroad to attend a surf event; and also the local resident that by attending the same beach as the surfer becomes also a spectator.

"Surf tourism is not a tourism of the masses, it is sustainable and continuous. Economic crises, terrorist attacks, natural catastrophes do not affect surf tourism. (Cadilhe, 2003 quoted by Lopes, 2008, p.20-21).

Based on my research we can consider three typologies of surf tourism travels : The charter yacht tours or boat trips, where the surfers stay accommodated on a boat that carries them for remote places with perfect waves; The land based surf tours or safaris, where the surfers travel by land and stay accommodated close to the places where they surf; and the surf camps, themed accommodation focused only on surfers.

2.3. Surf: A Changing Market

There is an estimate, by Forbes magazine, that the surf industry makes close to 45 billion dollars per year and surf related businesses are growing at a speed of 20% per year worldwide.
In Europe only, the number of new job creation goes up 5% every year. The contact with nature and the environmental preservation spirit make this sport one of the most demanded by many generations. Surf has become a practice of different people, with different ages and styles. Someone that starts surfing at a young age continues to do it during his whole life. This is probably why there is an estimate of the existence of 35 million surfers in the hole world, a number that won't seem to stop growing.

The growing notion of the lucrativity of the surf tourism market can be verified in the growing projects related with, for example, the construction of natural reefs. The United kingdom has completed the first artificial surf reef in Boscombe and it is estimated an economic impact close to 10 million euros per year apart from the 60 full time job creation and 30 part time.
Another example is New Zealand that has a proposal to construct an artificial surf reef in Mount Maunganui and estimated more than 50 visitor surfers per day.

2.4. Surf Pursuit: The optimal surf spot

The surf investigation is quite recent, so there are few studies with relevant statistic information. However, getting to know the motivation and the behaviour of the pursuit for surf is essential.
Dolnicar & Fluker (2003b) identified the main factors of a destination choice and they are mainly based on demographic and psychographic characteristics.

Regarding the psychographic characteristics, the different variables allow us to comprehend the different factors of choosing a place: the best scenario would be an uncrowded place, more specifically uncrowded waves so that surfers can move more freely and do not have to worry about other people's safety; personal safety; quality of the natural environment; health conditions; term of duration of surf season; secret spots existence; and nearby infrastructure supporting surf.

Regarding the demographic characteristics, they are divided in 3 groups: surf related issues (surf time duration, surf level, size of the wave); personal characteristics (age, gender, price willing to pay for the trip, daily expenses planned); and travel behavior (travelling company, travel alone or not and with whom, length of stay, destination novelty).

2.5. Surf Impacts:

In this chapter I want to address the main impacts of surf in the economic, sociocultural and environmental fields, so that we can understand how can the negative impacts be minimized.

The world tourism growth must be a target for a better environmental management, especially in areas that are more vulnerable to pressures, like maritime and coastal areas, where a poor structured development and the abuses made by visitors mean the loss of services and natural habitats. Furtheron, the effects of climate change, like the rising sea levels; the frequency and intensity of storm and waves; the beach erosion; the coral whitening; and the irregular supply of water threaten the coastal destinations (OMT, 2006).

Surf is directly connected to the coastal area of a country or region, for this reason the littoral tourism sustainable development affects surf, because both use the same resource: the ocean. Although surf is intangible, as far as the surfer does not retract anything tangible from the surf practice, the truth is that surfers produce negative impacts in surf destinations (waste, roads, erosion, water pollution, development, environmental degradation, resource depletion, etc.)

Other negative sociocultural impacts have to do with the maritime area restrictions because of fishing or environmental reasons, that are not well accepted by the surfers and can lead to conflicts with the local community. Also the fact that the local communities can feel that their sea is being invaded by surfers or foreigners can create tension in the otherwise welcoming community.

To finish we also have the environmental negative impacts, like pollution of the water and beaches; the pressure on resources like potable water; traffic and jam of parking lots; basically a group of consequences caused by the crowd upsurge.

Regarding the positive impacts that are directly related with surf, we can identify, at the economic level, the establishment of revenues that come from the touristic consume.

In relation to the sociocultural positive impacts we can consider: a population life conditions improvement because of the increment of infrastructures and facilities; a rehabilitation and preservation of cultural values; a positive demonstration effect that can be the incentive for a search for better life conditions or for equality by the local population; the encouragement of social tolerance by creating new knowledge and contacts; the nurture of cultural traditions; the undertaking of cultural events where the local population are the protagonists; job creation; and the development of new accesses, services and infrastructures.

In terms of the environmental positive impacts the surfers themselves must be involved in the preservation of resources, of which they depend on, and in this way enabling the emergence of vary associations, organizations and initiatives to protect the water and beaches quality.

The organization Save the Waves Coalition is a very good example. This organization works with world surf reserves and works towards the valorization and preservation of waves and coastal areas with the intention to create a reserve global network through partnerships and collaborations between the surf community.

Surf events can also incorporate environmental thematics and help in the environmental awareness of the coastal areas. As an example we have Rip Curl Pro Portugal 2010 (Peniche), that through partnerships between many entities took actions of environmental protection like: the supertubes structure was resting on foundation piles so that it could minimise the pressure on the dunes and vegetation, protecting them also with fences; the sand diggings were minimum; There were selective waste gathering at the beaches and cleaning of the sands; all the flyers were printed in recycled paper and with non nocive inks; and the t-shirts produced for the event were made with organic cotton.

The fact that surf is so connected to nature makes it easier to the tourist surfers to feel responsible for taking care of the environment.

2.6. Themed routes: Relevancy for the local development

The touristic routes enable the aggregation of touristic resources and, as such, the diversification of the touristic offer, also consisting in a promotion of these same resources in a specific territory.

The advantages are the revitalisation and valorization of resources and landscape and also the attractiveness of the region. This can grant an anchor to a city development by generating synergies to the economic level and consisting on a cultural and social progressive factor of a specific territory.

The study development and implementation of touristic routes has had a significant growth in the recent years in Portugal.

The main deficiencies in the development of routes are due to the lack of articulation between the public and the private sector, to the poor distribution and marketing, and to the lack of quality and homogeneity.

The success of their development entail the engagement of the population and of the private and public sector. Regarding the potential of a surf touristic route, there are possibilities derived from the local surf conditions and spots, in a route that could gather all the touristic offer, favouring the organization and divulgation of surf as well as boosting a specific region and organizing the territory.

The establishment of a surf route can bring many opportunities in certain coastal destinations promoting their national and international recognition.

Portugal is identified, by important world class and national surfers, as a surf destination with great potential, having amazing opportunities because of its vast coastline and the quality and diversity of waves.

Because of this there is advantage for developing a surf route in Portugal. Most portuguese make their first surf trip without crossing borders and any of these people will easily dislocate if there are better surf conditions in another region of Portugal, so we can safely say that surf has an enormous potential to increase the internal surf market of Portugal.

IV. Chapter 3 - National Scale: Portugal

3.1. Surf in the national context:

Portugal has an extensive coastline affirming in this way it's unique conditions for the surf practice as a european touristic destination, being one of the main surf destinations in Europe. The country conditions are: the mild climate, the quality of the waves, the amount of beaches with different qualities and the fact that there are good conditions to surf during the whole year.

However there are still important measurements and actions to define and to implement a way to guarantee the quality and sustainability of surf in the country so it could encourage the establishment of infrastructures that can give support to surf.

The best beaches for surf in Portugal:

● Beach

● Peniche

3.2. Portugal Surf History:

In Portugal the surf appearance was uneven and erratic. In the 60s portuguese surf had no expression, only foreigners took the advantage of portuguese waves.

In 1969 surf from portugal become noticed because of an article on the american magazine "Surfing" about the Sagres waves in Algarve.

But when surf started in Portugal it was not seen as a sport or something fundamental for well being but only as a hobby for rich people. Only in 1976, because of a change in habits regarding the beach, it was enabled the surf democratization in all the portuguese coastline.

At this time many regional surf championships occurred, and in 1976 it was held the first international surf championship in Carcavelos. After this, Portugal was constantly participating in surf competitions all over the world with the main objective of raising the lever of national surf giving it a bigger international nature and calling the attention of the population to surf.
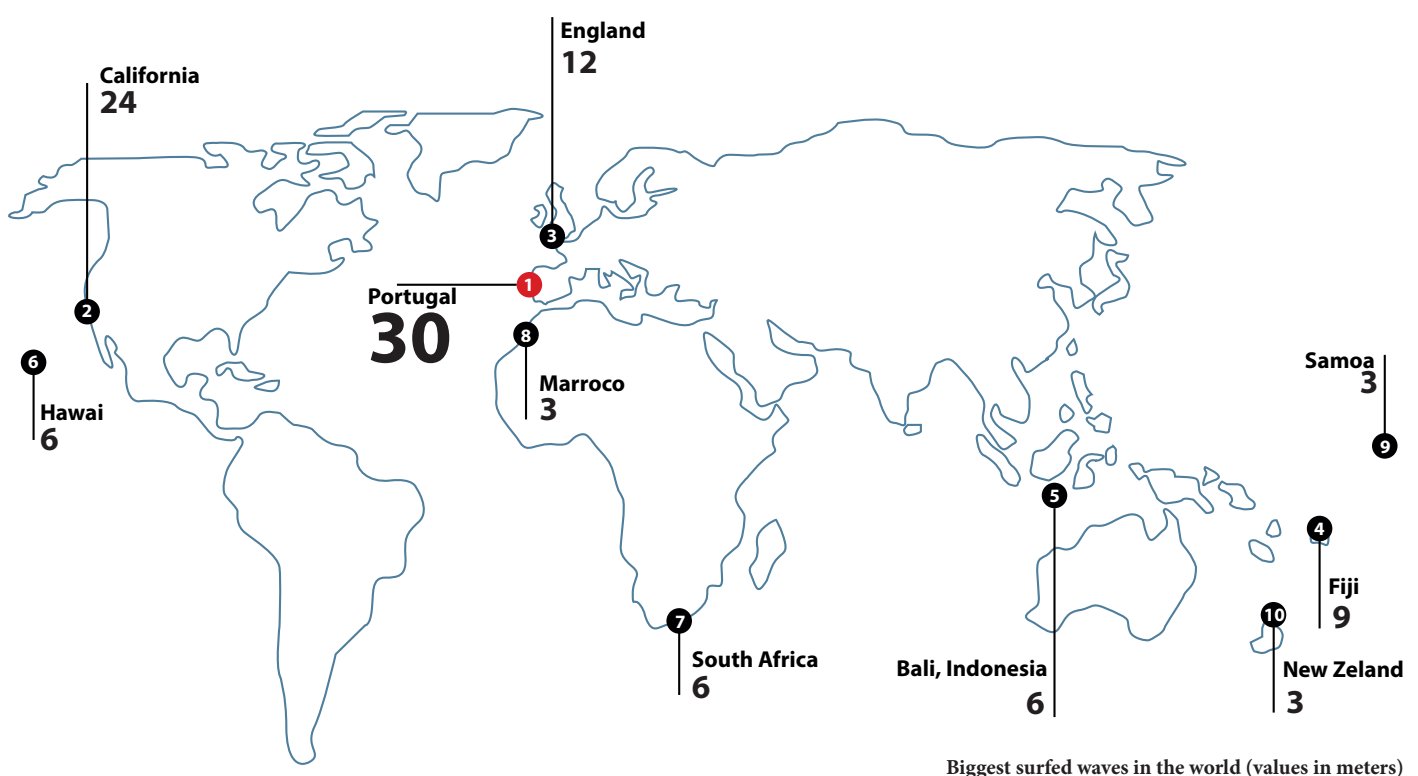
After the 80s, with the increased number of surfers in portugal and the confirmation of economic interests, many surf branches emerged together with an official portuguese surf federation.

In the new millennium the surf industry continued to thrive with the appearance of informative portuguese websites about surf, Tv surf channels, surf schools, surf shops, surf factories, etc.

In the competitive part there were an exceptional interest mainly after that for the first time in portuguese surf history, Tiago Pires reached the superior level in worldwide surf when he stayed in 2010 in 29th place in the best world surfers ranking.

Phenomenons like the seven waves of Ericeira or the giant waves formed by the Nazaré canon, contributed a lot to make these small fisherman villages popular in the hole world. Having Garret McNamara surfed a 30 meters wave in Nazaré in 2013, and Benjamin Sanchis, in the next year surfed a 33 meters wave in the same place, placing it in the world guinness records, made that in 2015 only, the lighthouse of Praia Grande visited by more than 110 thousand people.

We can safely say that surf is now part of the Portuguese culture and in some regions is what keeps coastal cities alive.

Biggest surfed waves in the world (values in meters)
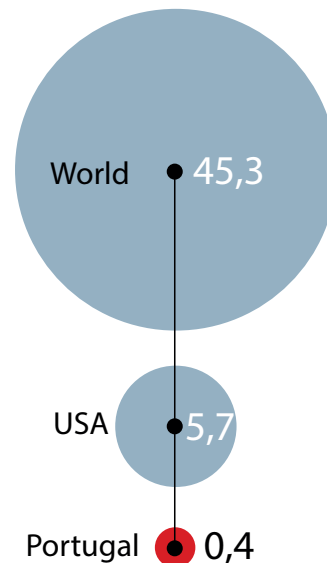
3.3. Surf in the Portuguese Economy:

We can safely say that Portugal is the main European surf destination since we have 38,3% of the market.

Since 2009 there was a big jump in Portugal in everything related with surf, from job creation and new businesses, an increase of tourism not only on high season and we observed surf being included in successful and important international opportunities.

But there is still a long way to go if we compare Portugal to countries like the USA or Australia that since the beginning combined perfectly the natural resources with the development of infrastructure and business retaled with surf.

Surf in the Economic Plan:
Values in billions

World ● 45,3

USA ●5,7

Portugal ● 0,4

A small study about the economic impact of Rip Curl Pro Portugal in the last year, placed in over than 10 million euros the total economic impact of the competition in the region of Peniche.
Here we can see just a small parcel of the global contribute that surf has been giving to the portuguese economy, such one that, according to the number of 2012, is worth more than 400 million euros.

Average Individual Spendings:
Values in euros

117,91
Portuguese

218,15
Foreigners

Number of Visitants Estimate:

100,000

Economic Impact Estimate:
Values millions

Direct 9,3

Indirect 1,3

Global Returne:
Values in millions

30,0

12,4

2011   2015

3.4. Surf Route: Similar implemented projects:

Portugal has a vast list of touristic routes throughout the country (religious routes, wine routes, prehistoric routes, monumental routes, gastronomical routes, etc) being the most famous: the Caminhos de Fátima route, that is divided in 3 different routes (Caminho do Tejo, Caminho do Norte and Caminho Nascente) and with more than 4 thousand signs with blue arrows pointing the correct way to Fátima; and Vicentina Route that is a network of walking trails in southwest of Portugal with a total of 400 km to walk along the coastline.

Regarding surf routes, after searching I have not found any other examples where this type of project has been implemented. However there are regions with similar surf destinations as Portugal, focusing especially in a direct comparison to Peniche (the chosen region to work with) the best examples, because of the geographic proximity, the touristic potential and the excellent surf conditions, would be : Hossegor and Biarritz in France; Mundaka and Cantabria in Spain; Cornwall and Newquay in the United Kingdom; Bundoran and Lahinch in Ireland; Safi and Agadir in Morocco; etc.

V. Chapter 4 - Regional Scale: Peniche

4.1. Peniche as the region for the project:

This next chapter remits for the introduction of the proposal by choosing a region in Portugal and then a more specific place in this region to work in more detail. The chosen region was Peniche.

Peniche is a seaside municipality and a city in Portugal. The region has a population of 27,753 and an area of 77,55 km2. In the city center there are 15,600 inhabitants.
Peniche is known for its long beaches which are popular for recreational activities and sports. These beaches are consistently windy and have good waves forming fast and powerful tubes, being considered among the best in Europe.

Surf is a market in evolution in Peniche that manages a strong local activity and dynamic. Although surf has such great potential in Peniche its development evolves structural challenges like to guarantee its sustainability, a bigger social integration and solving the lack of important surf and beach supportive infrastructure.
The establishment of a thematic surf route enables the recognition of surf and because of this, a section of this route in Peniche can propel the improvement of the base conditions as well as contribute for a stronger national and international visibility of Peniche.

The region of Peniche saw tourism grow after entering the world surf circuit in 2009. Last year only, the 15 days of tournament had a local economic impact of 10,6 million euros and 100 thousand visitors, according to the Escola Superior de Turismo e Tecnologia do Mar.

In 2005 António José Correia was elected as the city council president and he believed in surf as the brand image for Peniche: The Wave Capital. The consolidation of the brand "Peniche the Wave Capital" made it possible for the emerge of a local identity, distinguishing it from other surf destinations and identifying the market opportunities. Basically, Peniche had to chose between having a deep water port or keeping a type of wave that was worth millions. The choice was the wave and this shows the strategic priority of surf in Peniche and its effective development in the region.

To conclude, Surf in Peniche will continue to have an important role in the consolidation of the brand WaveCapital and with the future construction of a surf high income center reinforcing in this way the mediatization of surf in Peniche to national and international level with the events associated to its local identity.

4.2. Why is Peniche optimal for surf:

The fact that Peniche is a peninsula reflects in a very positive way in the surf conditions.
The south part of the peninsula (Porto Batel, Consolação, Supertubos and Molhe Leste) has wind from north, making the curl variable, or wind from south/west, especially in Supertubos and Molhe Leste. On the other hand the North side of the peninsula has wind from south/east and curl direction from west/north. Because of this there are always excellent conditions for surf or in the south part of the peninsula or in the north part.

The variety of difficulty levels, general easy access and frequency of functioning in the waves direction, that in a general way works both to the right as to the left, results in the attractiveness of Peniche enabling a diversity of surf levels and experiences, pleasing beginners as much as pleasing experienced surfers.

Strengths	Weaknesses
- Good geographic location with easy accessibility; - Climatic conditions - Natural and landscape heritage; - Historic and cultural heritage - Touristic potential of the cost line for water sports; - Wave quality (supertubes); - Variety of wave type and difficulty level; - The "brand": Peniche capital of wave; - National and international surf events; - National and international recognition; - Diversity of accommodation including surf camps;	- Climatic conditions and water temperature; - Crowded summers; - Lack of touristic infrastructures; - Accentuated seasonality of tourist flows; - Poor preservation and valorization of the cultural and natural heritage; - Poor urban planning (industry location); - Inadequacy of urban planning;

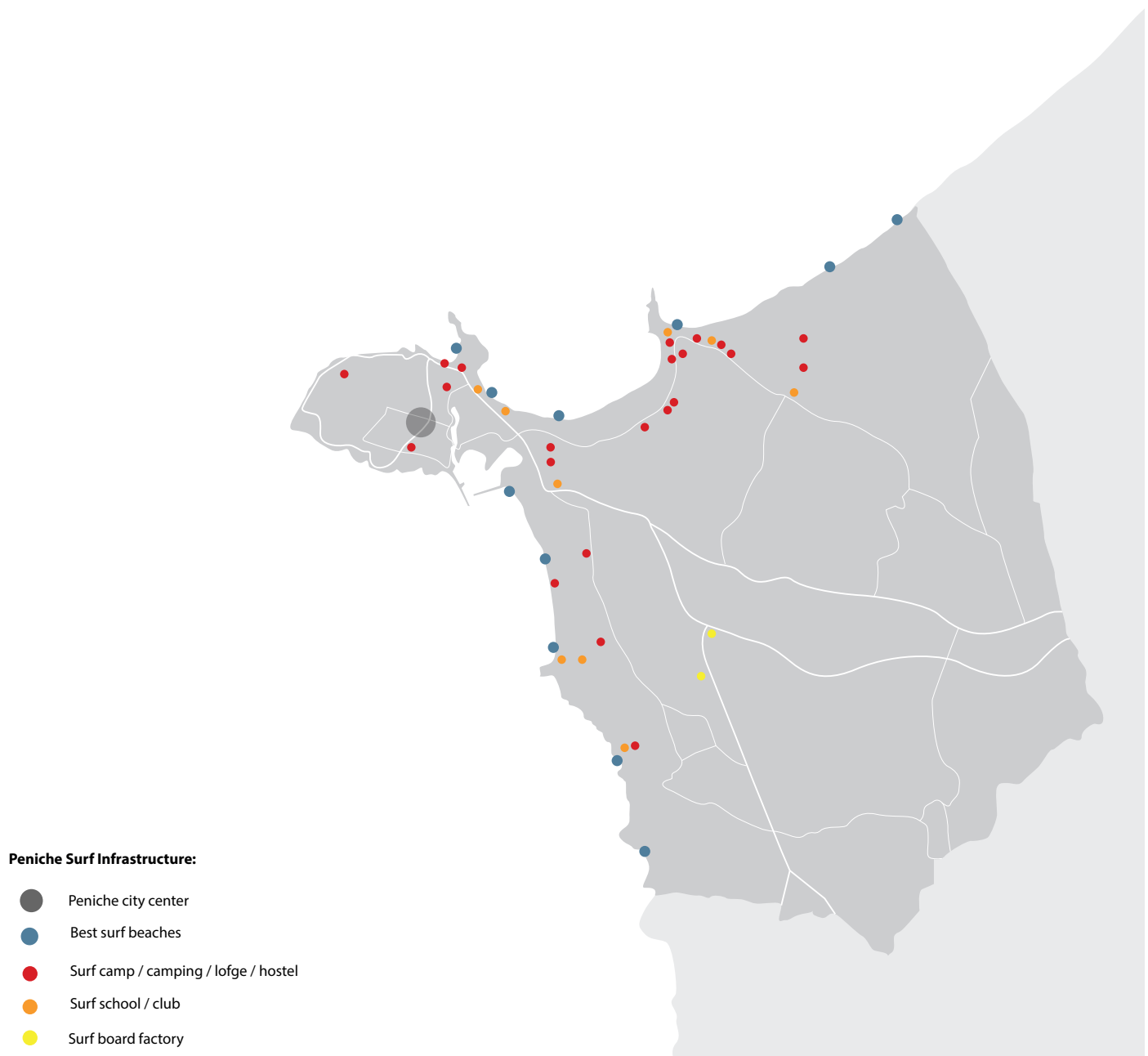| Opportunities	Challenges
- Portugal centrality as a surf destination; - Ocean/Land connection; - Profitable and rapid growth surf industry; - Local investments attraction; - Job employment; - Surf as sustainable development; - Surf events attractions; - Classification of the beaches by difficulty levels; - Potential growth of touristic roads and reduced seasonality;	- Portugal's economic and political crisis; - Poor territorial planning; - Minor tendency for investing on national products; - Poor quality of local tourism; - Competition from other regions; - Climatic changes and sea level rising; - Natural wear of infrastructures close to the sea;

4.3. Peniche Infrastructure:

The beach infrastructures in Peniche are more concentrated in Baleal area and in the south part of the Peninsula especially in the peak season (garbage points, restaurants, parking lots, dune footbridges) however is notable the lack of infrastructures during the whole year and in the other beaches or surf spots of the peninsula.

The main observations are the lack of beach identification and signs, support for people with reduced mobility, environmental quality, lack of urban planning and places for first aid, showers or storage.

In the west part of Peniche city 300 work posts are directly related with surf (15 surf shops, 3 boards factories, 30 surf schools and surfcamps).
More or less 10 years ago, with the growth of construction demand in the coastal area it was needed to think about preservation solutions and the application for world reserve appeared as the solution to stop the erratic development in the coastal area. Since then the number of surfers surfing during a whole day went from 15 to 150. So it is clear to me that interfere in a big scale in the coastal area of Peniche it is not a choice for my project.
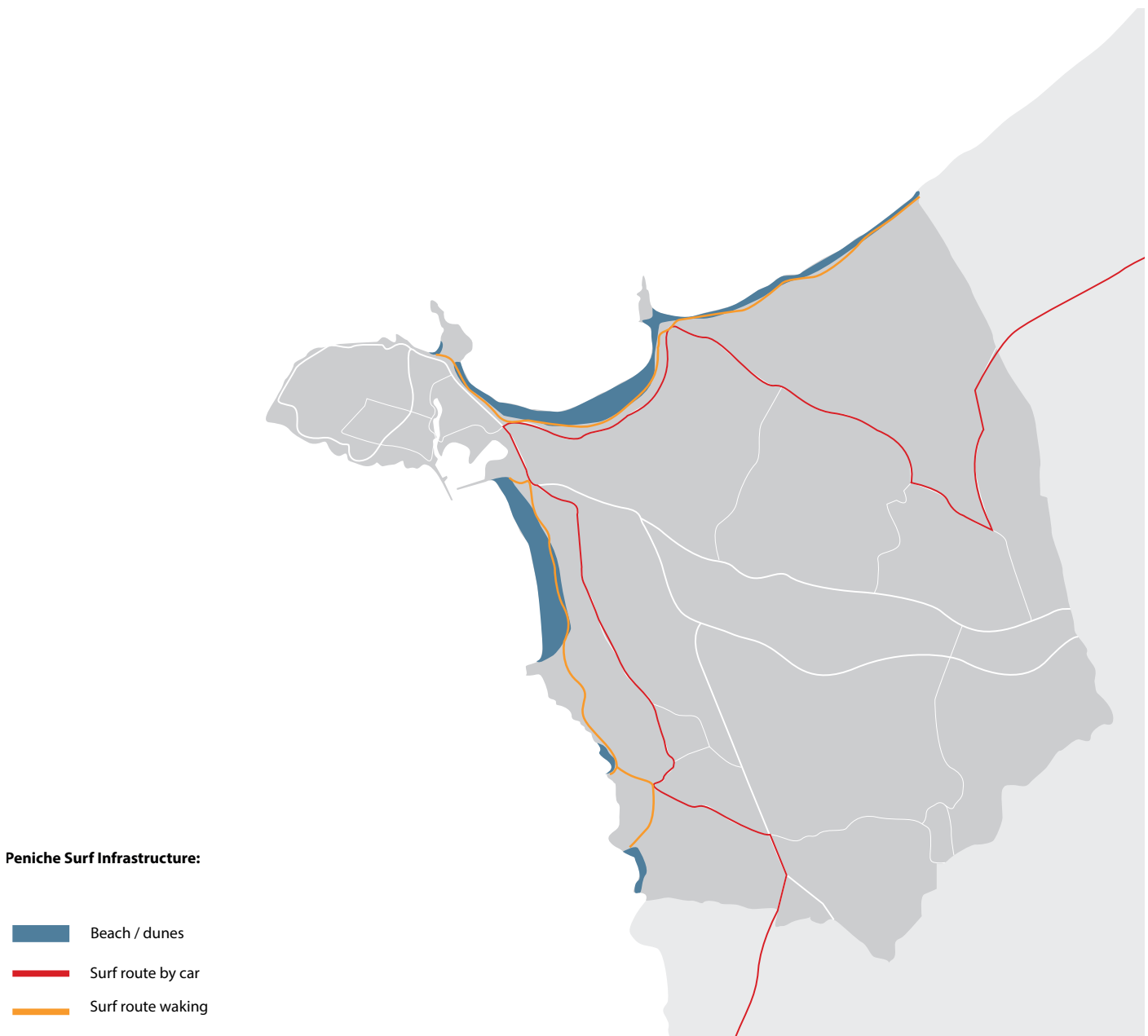
Peniche Surf Infrastructure:

- ● Peniche city center
- ● Best surf beaches
- ● Surf camp / camping / lofge / hostel
- ● Surf school / club
- ● Surf board factory

VI. Chapter 5 - Proposal Outline

5.1. Proposal

The Surf route in Peniche would consist of a main route for cars that would connect with the rest of the national route on both ends; and another walking route(s) that would connect beaches or other important surf spots and would contain the adjacent new infrastructure.
The route would promote its own brand image with a coherent language road signs, beach signs and maps..
This coherency would bring all the different typologies of interventions together and make the projects concept stronger.

It is important that the project explores the environmental aspects of the surf impacts on the territory, by working with landscape in a way that creates solutions and improvements for the practice of the sport. Peniche beautiful landscape, especially the coastal areas should be protected the best as possible and after all surf is directly connected with nature and depends on it.

Peniche Surf Infrastructure:

Beach / dunes

Surf route by car

Surf route waking

After my research I arrived to the conclusion that Peniche already has main services related with surf such as surf schools, surf camps and hostels, surf industry, etc). However, it requires a more holistic approach that include reshaping and rethinking the territory and for creating a local strategy for the surf infrastructure that benefits both surf and the local community.

New infrastructure proposal:

- Road signs;
- Footbridges / connections / paths;
- Viewpoints;
- Resting points;
- Sanitary facilities;
- Showers / changing rooms;
- Shelters;
- Eating areas / communitary kitchens;
- Workshops;
- First aid points;
- Sport areas;
- Camping areas;
- Caravan / car parking.

I truly believe that by exploring and designing a section of what could be the Portuguese touristic surf route in a specific region, could show the long term potential of the totality of the route, improving important seaside regions of the country and expanding and improving the qualities of portuguese surf both national and international.

5.2. Case Studies:

- The good life at the sea. Klitmoller, Denmark. Preben Skaarup ark.
- Praia Formosa Promenade. Madeira, Portugal. João Gomes da Silva and João F. Nunes ark.
- Projecto de requalificação das arribas. Foz do Arelho, Portugal. Nadia schilling ark.
- Bet bla plateau. Blavand Strandpark, Vestkysten, Denmark. Norron ark.

5.3. Work Schedual:

August	September	October	November	December
• Design proposals: national scale • Concept models • Visit site • Mapping	• Design proposals: national and region scale • Organize material	• Design proposals: region and site • Zooming in and out • Prespectives • Visit site	• Design proposals: site scale • Detailing • Final models	• Finish models • Finish drawings

Bibliographic references:

Buckley, Ralf (2002a), Surf Tourism and Sustainable Development in Indo-Pacific Islands. I. The Industry and the Islands, Journal of Sustainable Tourism, Vol.10, No.5, p.405-424;

Câmara Municipal de Peniche (2009c), Revisão do Plano de Ordenamento da Orla Costeira – Alcobaça - Mafra, available at http://www.arhtejo.pt/c/document_library/get_file?uuid=d6c20b93-f56e-4d22-92e7-4b474319f10a&groupId=10225

Câmara Municipal de Peniche (2009d), Guia de Surf, available at http://www.cm- peniche.pt/_uploads/PDF_PCOnda/GuiaSurf2009.pdf

Câmara Municipal de Peniche (2009e), Magna Carta de Peniche 2025, available at http://www.cm- peniche.pt/_uploads/PDF_MagnaCarta/Magna_Carta_Peniche2025_Completa_vFinal_i mp_08_2011.pdf

Câmara Municipal de Peniche (s.d.), Estudo Preliminar da Aldeia do Surf, available at http://www.cm- peniche.pt/_uploads/convencao%20V/EstudoPreliminarAldeiaSurf_VConvencao.pdf

Dolnicar, S. & Fluker, M. (2003a), Behavioural market segments among surf tourists - investigating past destination choice, Journal of Sport Tourism, Vol.8, No.3, p.186- 196;

Dolnicar, S. & Fluker, M. (2003b), Who's Riding the Wave? An Investigation Into Demographic and Psychographic Characteristics of Surf Tourists, available at ro.uow.edu.au/cgi/viewcontent.cgi?article=1258&context=commpapers

Kampion, D. & Brown, B. (2003), Uma História da Cultura do Surf, 1a ed., Taschen, Köln;
Rocha, João Moraes (2008), História do Surf em Portugal: as origens, 1a ed., Quimera Editores, Lisboa;
Tantamjarik, Pimporn Audrey (2004), Sustainability Issues Facing the Costa Rica Surf Tourism Industry, available at http://scholarspace.manoa.hawaii.edu/bitstream/10125/10548/1/uhm_ms_3870_r.pdf

Uma onda a crescer: Largar tudo para viver do surf, Journal Visão, 2016, available at http://visao.sapo.pt/actualidade/economia/2016-10-29-Uma-onda-a-crescer-largar-tudo-para-viver-do-surf