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# Inside the Wave: How "The 100 Foot Wave" Changed the Lives of the Local community in Nazaré

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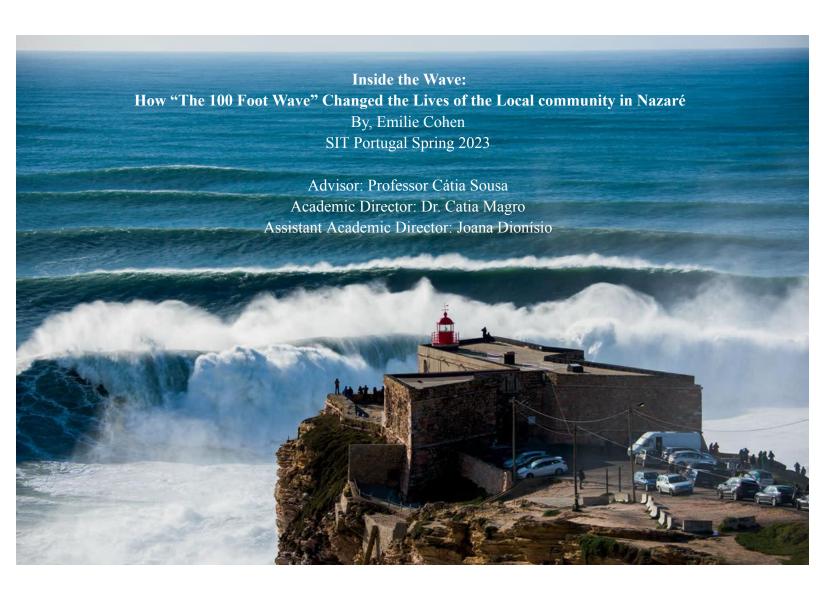
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#### **Abstract**

Surfing and surfing tourism are a critical part of Portugal's economy and culture. Nazaré is a town that embodies a transition from a traditional fishing village to one that lives and breathes surf. Such a quick change in the leading industry of a town raises concerns about the impacts it has on the community. Therefore, the project focuses on the economic, social and cultural, and environmental impacts of tourism intensification on the local community in Nazaré through the perspective of the local people who are directly impacted and witness these changes. Other stakeholders are included, such as the Garrett McNamara Foundation and the Nazaré Municipality, to create an all-encompassing analysis. The results show that increases in surfing tourism have increased economic revenue and opportunities in Nazaré, but have also reduced the ability of locals to afford living there. It was also found that such a transition is evolving the locals' relationship with the ocean to become more positive. Cultural exchanges also lead to more open-minded perspectives, the learning of new languages and cultures, and the sharing of stories. However, an increase in tourism leads to environmental costs, such as increased pollution and urban waste. Nevertheless, a focus on *surfing* tourism embraces nature and teaches all those who live within it to protect it, resulting in higher rates of environmental stewardship in Nazaré.

#### 1. Introduction

# 1.1- Portugal and the Importance of the Sea

Portugal lies on the most western point of Europe, with a long coastline exposed to the Atlantic Ocean. Portugal's current claim to maritime resources covers an area of about 3.8 million square kilometers, about 40 times the landmass of the country and one of the longest coastlines in Europe (Moniz, 2019). Such large access to the sea has profoundly influenced the country's culture. For example, Portugal's history and traditions in seafaring, fishing, and surfing has resulted in a culture that is highly revolved around the sea. The sea is therefore an "essential part of the Portuguese National Identity" (Moniz, 2019).

Over the past decades, ocean economics has gained an increasing importance and the "Return to the Sea" has actively promoted surfing as one of its most significant activities (Moniz, 2019). At the beginning of the 21st century, the Portuguese Government began executing several programs in recognition of the rightful importance of the ocean, promoting tourism, shipbuilding, and ocean energy, among others. In Portugal, the ocean contributes about five billion euros to the economy, which is equivalent to a gross added value of 2.6 percent of the national economy (Moniz, 2019). This illustrates how strongly the ocean plays a role in Portugal's economy and culture.

The ocean supports both marine and ocean tourism in Portugal, as "diverse ocean resources are complemented by unspoiled and a visually appealing landscape" (Moniz, 2019). To support this, in 2022, Portugal was named the "Best Tourist Destination in Europe" in the European edition of the World Travel Awards 2022, which was the fifth time in the last six years (World Travel Awards, 2022). Therefore, Portugal has a rich history and culture that surrounds the ocean and has grown to harness it towards economic and tourism development.

#### 1.2- Surfing Tourism in Portugal

Sport and ocean tourism have driven Portugal into the international spotlight as one of Europe's leading surf destinations. Surf Tourism can be defined as "an activity which takes place 40 km or more from the person's place of residence, where surfing or attending a surfing event is the primary purpose for travel" (Martin & Assenov, 2011). A steady and upward trend in global surfing activity along with low-cost, accessible travel has led to increased commercial surf tourism in Portugal. For example, in Portugal, "the number of companies dedicated to surfing business [doubled to] 800," in the last three years (Godinho, 2020). The World Surfing League is also moving its European headquarters to Portugal, and hosts competitions in Peniche frequently. This intensification in tourism has made several less developed regions in Portugal grow rapidly, including Ericeira, Nazaré, and Peniche. Recent literature has also accelerated research surrounding surfing tourism and revealed it as a potential source of development to these communities and destinations.

# 1.3- The history of Nazaré: From fishing town to surfing destination

Before Nazaré became famous for big wave surfing, it was a small fishing village with little awareness. Until the 1970s, fishing activities represented about two-thirds of the economy of Nazaré (Cunha & Gouveia, 2015). The seasonality of activities and the annual fishing rhythms -high amounts of activity in the summer and almost inactivity during the winter- "was always felt by the local population as their major weakness: the Nazarenes always lived this duality between the abundance during the summer and the times of hunger during the winter" (Cunha & Gouveia 2015). The people of Nazaré also had a complicated relationship with the sea, as it provided them with food and economic activity, but took the lives of many fishermen, stealing them from their wives and families. As described by Cunha & Gouveia 2015, "Nazaré represented the struggle for survival". Since the mid 1980s, fishing activities have declined in Nazaré, accentuating their dependence on summer economic activity and leaving the town looking for the "next big thing."

While Nazaré was a popular surfing destination, it was not put on the map until Garrett McNamara. The same waves that were looked at with fear became what revived the town and transformed it into a vibrant tourist destination. Nazaré became one of the "mecca of giant waves" when on November 11, 2011, Garrett McNamara rode a 78-foot wave, beating the world record (Azevedo, 2023). The Nazare Municipality had challenged the USA Surfer and others to test the uniqueness of their waves through a three year project titled North Canyon. International recognition of these waves were soon achieved as multiple surfers beat Guinness World Records and the photos streamed the media. Specifically, on January 28, 2013, Garrett McNamara surpassed his old record and surfed a 100 foot wave, reaching international press, newspapers, and broadcasts (Cunha & Gouveia, 2015). All of these achievements attracted foreign tourists and put Nazaré on the map as a global surfing destination.



Figure 1.3- The "famous" photograph of McNamara surfing 100 foot wave (Cunha & Gouveia 2015)

# 1.4 Big Wave and Tow In Surfing

Big Wave surfing originated from Hawaii during the 1940s and 1950s. A group of surfers were inspired to tackle the big waves that formed there, including John Kelly, Wally Froiseth and Fran Heath (Wieser, 2019). Then, in the year 1953, the photograph of George Downing, Woodbridge "Woody" Brown and Buzzy Trent riding across a 5-meter wave, was published in Americas' newspaper and inspired more surfers to try big-wave surfing (Wieser, 2019). This was also when the "elephant gun" surfboard was invented to allow for the riding of such large waves. In the 1960s, big-wave surfing became a media-sensation and spots for big wave surfing became easily shared (Wieser, 2019). Since then, it has continued to be embraced by the media and surfers looking for high-risk waves and adrenaline-boosts.

In the 1990s, big wave surfers invented "tow in surfing" to increase their ability to ride larger waves. The beginning of the "tow-in" surfing was made by Laird Hamilton, Buzzy Kerbox and Darrick Doerner who used a Zodiac on the north shore of Oahu to pull each other out into the big waves (Wieser, 2019). It gained traction as it allowed a larger group of surfers to attempt to ride the monster waves, as well as led to the increase of jet-ski rentals and tourism. However, there is continued contradiction between those who use a "tow-in" and surfers who paddle out, as it proves those who are worthy of riding the waves.

#### 1. Literature Review

# 2.2 Impacts of Tourism and Surfing Tourism

#### 2.2.1 Tourism numbers in Nazaré

The awareness of surfing in Nazaré led to an exponential boom in tourism. As shown in Table 2.2.1.1, the number of hotel guests from 2010, before the buzz about Nazaré, to 2019, before the COVID-19 pandemic, increased by 295%, as it changed from 44,931 tourists per year to 132, 466 tourists per year (Azevedo, 2023). In addition, while Nazaré's population decreased by 203 inhabitants during that same year period, the town's population increased by ten-fold, to almost 100,000 people, during big wave periods. In addition, as shown in Table 2.2.1.2, the local residential population decreased, but foreign residents increased by more than double. Hotel accommodations also more than doubled.

Table 2.2.1.1: Comparative evolution of the number of hotel guests, according to their home countries.

	Portugal (2010)	Portugal (2019)	Oeste (2010)	Oeste (2019)	Nazaré (2010)	Nazaré (2019)	Variation 2010–2019(%)
Total	13,537,040	25,249,904	286,305	650,917	44,931	132,466	295%
Portugal	6,705,460	9,941,747	199,516	361,351	27,389	58,115	212%
UE27/UE28	12,112,682	10,602,067	266,678	194,081	39,934	48,466	121%

Table 2.1.1.2. Evolution of population, both local and foreign, and hotel accommodations from 2011 to 2021 in Nazaré (PORDATA, accessed April 23).

	Nazaré 2011	Nazaré 2021
Resident Population	15,086	14,917
Foreign Population	541	1,146
Tourist accommodations	13	30
Guests in Tourist Accommodations per 100 inhabitants	421.7	562.1

# 2.2.2 Economic Impacts

Tourism activities offer multiple benefits to global and national economies, which has led the Government of Portugal to classify tourism as one of the strategic areas for investment. In 2018, tourism revenues were equivalent to 8.2 percent of the Gross Domestic Product (GDP) and 18.6 and 51.5 percent of the global exports and service exports in Portugal, as well as contributing \$45.5 billion to the economy (Moniz, 2019). The tourism sector makes a similar contribution to the labor market, by providing jobs and business opportunities. For example, with surfing tourism, it opens up opportunities for surfing lessons, camps, jet ski rentals, surf shops, and more. In Portugal, the contribution of the tourism sector to the labor market is as high as 21 percent, given that about one million people were directly or indirectly employed by the sector in 2018 (Moniz, 2019). In addition, the development of tourism in previously underdeveloped areas requires the existence of proper infrastructure, such as hotel accommodation, roads, and facilities. These utilities are "economically indivisible in the sense that, in providing for the tourism industry, they at the same time become available for the use of local people" (Theobald, 2005). Therefore, there is a strong positive economic impact from tourism and surfing tourism.

However, there are also negative impacts, such as a more competitive rental and housing market. In order to supply the growing demand of tourism, AirBnB and HomeAways have increased and have facilitated easier access to affordable housing options. However, "booking platforms exacerbate housing affordability issues for local residents by restricting the supply of long-term housing rentals and provide unfair competition to traditional suppliers such as hotels" (Franco et al., 2021) Therefore, for locals in the area, tourism can increase the price of living and make it harder to continue living in that area. This may be considered economic, social, or cultural for residents, as the economic impacts have trickle down effects.

There are other economic costs to increases in tourism. Import requirements, earnings of expatriate workers, and overseas expenses do not benefit the local resident population and add external costs for the country (Theobald, 1998). In addition, there are also internal costs, such as

the fact that the "development of a tourism industry requires scarce resources to be diverted from their alternative uses," and the opportunity cost is high by reducing development in other sectors (Theobald, 1998).

### 2.2.3 Social and cultural impacts

#### 2.2.3.1 Place Attachment

Place attachment is according to Brown, Altman and Werner (2012) and cited by Påhlsson & Sjöberg (2019): "Positive bonds developed from behavioral, cognitive, and affective ties between individuals or groups and multiple levels of their socio physical environment". In a community context, place attachment concerns the social processes through which place attachment is manifested, including feelings of belonging and shared interests and values (Påhlsson & Sjöberg 2019). Place attachment highly influences the way one views their neighborhood and community, and whether they choose to stay or move elsewhere. Tourism can increase or decrease place attachment. For example, when the community may feel pride "when visitors want to spend their time and money in their area of residence, elevating feelings of community identity" (Bradshaw, 2021). However, it can also lead to social issues and a poor sense of place attachment, as residents may feel uprooted or overwhelmed by unfamiliar faces. For example, tourists' point of view may differ from the values of the residents, which can lead to changes or conflicts in the touristic destination and result in frictions and a negative impact on the host communities (Bradshaw, 2021).

# 2.2.3.2 Cultural Exchanges

Tourism has strong influences on socio-cultural aspects of a place. According to Zhuang et al. (2019), "tourism has an influence on the features of the local social culture, affecting the social habits, customs, values, beliefs, and lifestyles of the residents at a tourist destination". Because Nazaré attracts a lot of people throughout the world, tourism can also influence the personal and social relationships of the local population. Intercultural exchanges take place as residents and tourists interact throughout the town. According to Wieser (2019, pg. 48), "these developments enable a share of knowledge and experience, especially within the surfing community. This knowledge transfer concerning safety issues, waves, technical equipment and topics related to spots which are further developed and explored are of high interest". These exchanges lead to new friendships, knowledge, and ideas, especially among returning tourists and residents. This can prove to be mutually beneficial to both tourists and locals, as interconnectedness promotes innovation, open-ness to other cultures, and the development of new ideas (Bradshaw, 2021). Cross cultural communication also allows locals to learn from others without leaving their homes and for outsiders to learn other cultures. This can lead to simultaneous preservation and sharing of culture. "Tourism and conservation are interdependent and both can stand to gain from close and effective collaboration" (Sandeep & Vinod, 2014, pg. 41).

# 2.2.3.3 Commercialization of Culture

Another significant negative cultural impact of tourism is the effect it has on traditional values and customs. Tourism interactions "change into the commercialization of cultural values and traditions at the destination for the purpose of earning a living" (Sandeep & Vinod, 2014). Large scale tourism, especially within developing countries, can lead to "goods and/or services that used to be part of people's individual and social lives [to be] commercialized and presented as commodities" (Sandeep & Vinod, 2014). This has created circumstances in which culture is based on monetary earnings, rather than the local people's values and beliefs.

#### 2.2.4 Environmental Impacts

Tourism can have both positive and negative impacts on the environment. In a positive light, surfing tourism can increase environmental stewardship of the local community. This is because "nature-based and life- style sports increasingly incorporate the natural environment" encouraging a stronger connection between humans and the environment and allowing social issues to progress (Bradshaw, 2021). For example, surfers develop strong attachments to the surf breaks where they learned to surf and put considerable time into surfing and learning the waves (Larson, 2017). Surfers' attachment to the ocean has also spurred the creation of multiple global environmental organizations and initiatives, such as Save Our Surf in 1964, the Surfrider Foundation in 1984, Surfers Against Sewage in 1990, and World Surfing Reserves in 2009 (Larson, 2017).

However, tourism is also strongly linked to an increase in individual and national carbon emissions, which is highly relevant to the global climate change crisis. Tourism contributes directly to the carbon sector, as it is linked to commercial and institutional stationary emissions, which includes restaurants, hotels and similar establishments (Russo et al., 2020). According to Russo et al. (2020), in Portugal, total emissions suggest that tourism activity is responsible for 15.1-67.6% of total emissions, depending on the area. This highlights that tourism has a significant impact on atmospheric emission, contributing to environmental issues, such as urban stress and air pollution.

Thus, another negative impact of tourism is air and noise pollution, as the inflow of tourists requires increased air, train, bus, and car travel. Air pollution from tourist transportation has impacts on global level and can contribute to severe local air pollution (Camarda & Grassini, 2003). In addition, noise pollution from airplanes, cars, and buses, as well as recreational vehicles such as snowmobiles and jet skis causes annoyance, stress, and even hearing loss.

An increase in tourism can also lead to an increase in solid waste and litter, and can build up in the natural environment and bodies of water. "Solid waste and littering can degrade the

physical appearance of the water and shoreline," which can also be consumed by marine animals and cause death (Camarda & Grassini, 2003, pg. 265).

Lastly, tourism leads to an increase in waste water and overutilization of fresh water resources. The tourism industry, "generally overuses water resources for hotels, swimming pools, golf courses and personal use of water by tourists... [resulting] in water shortages and degradation of water supplies, as well as generating a greater volume of wastewater" (Camarda & Grassini, 2003).

# 2. Methodology

- 3.1 Nazaré Case Study
- 3.1.1 Causes for the Boom of Surfing Tourism in Nazare
- 3.1.1.1. The geographical characterization of Nazare and its "100 foot Waves"

The geographical characteristics of Nazare contribute to what makes its surfing so unique. The canyon system dynamics throughout the Portuguese Atlantic and that of the Nazaré canyon create an energetic climate that feeds into big-wave formation (Carmo, 2022). The Nazare Canyon has a large dimension and a relatively low longitudinal slope, cutting across the entire shelf, creating higher energetic potential (Carmo, 2022). It is the largest underwater valley in Europe, extending about 225 km from a water depth of about 50 m at the continental shelf to about 5000 m at the edge of the Iberian Abyssal Plain (Carmo, 2022). The headboard of this canyon is less than 1500 m offshore, focusing extra swell into the region and increasing the swell in size very close to the coast (Carmo, 2022). While normal waves usually lose energy long before reaching shore, at Nazaré, the ocean swells get focused in the submarine canyon and do not lose energy until they reach the near shore. When they emerge at the canyon head, they reach a very shallow bottom and become suddenly very high. (Cunha & Gouveia, 2015)

This distinguishes the Nazaré Canyon from others along the Portuguese Atlantic Coast, allowing for such uniquely large waves.

The bathymetric characteristics of the Nazaré Canyon also provide more favorable conditions for giant wave development, as the various bends in the canyon create a more complex environment for the refraction and convergence of incoming waves (Carmo, 2022). Currents through the Canyon combine with strong winds driven from the outer Atlantic to create waves that propagate at different speeds, and converge where the canyon narrows to swell directly at the location of the Nazaré lighthouse.

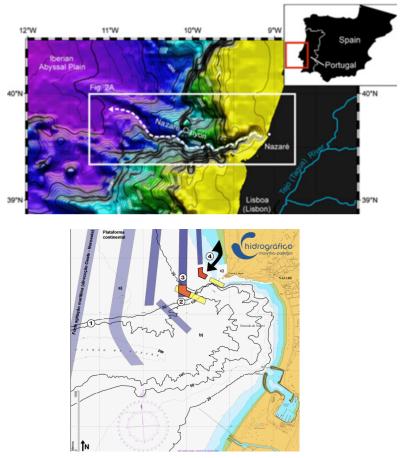


Figure 3.1.1.1: Bathymetry map of the west iberian margin showing the location of Nazaré canyon (Cunha & Gouveia, 2015). The formation of big waves in Nazare (Wieser, 2019).

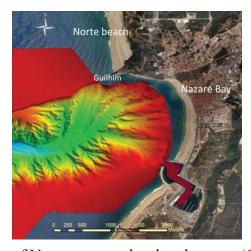


Figure 3.1.1.2: Proximity of Nazare canyon head to the coast (Cunha & Gouveia, 2015)

Nazaré is also exposed to an energetic climate as a result of its location bordering the Atlantic Coast. Big storms in the North Atlantic Ocean generate swells that reach the western Iberian margin, making stormy waves frequent in the western Portuguese coast. According to

Cunha & Gouveia 2015, storms will likely increase along the Portuguese coast by the end of the 21st century, which may increase erosion events by 15-25% from 2015 and increase the number of yearly extreme weather events. Climate change will aggravate coastal erosion through rising sea levels, increased storminess, and changes in wind direction, contributing to a loss of territory and even more pronounced wave formation in Nazaré (Carmo, 2022).

# 3.1.1.2. Attractiveness of Nazare as a Tourism Destination

According to Cunha & Gouveia, Nazare is not only known for its giant waves, but also for its quality of everyday waves, making it an attractive destination for surfers from around the world. The big wave surfing that Nazare is famous for is not the usual surf, but is only present during certain climate conditions. Praia do Norte exemplifies consistent ideal surfing conditions, including a curling NorthWest, meaning that it receives swell in the morning (Cunha & Gouveia, 2015). The waves also display a wedge geometry, which is more ideal for surfing positioning, and because these waves swell fast, they form predictable tubes, a highly-sought-out characteristic (Cunha & Gouveia, 2015).

In addition, big wave surfing draws risk-seeking surfers and tourists to Nazaré. Azevedo (2023) found that there are nine push factors that determine the conditions and significance of the environment, which in turn are positively correlated with the satisfaction in adventure tourism: thrill, risk, physical challenge/skills development, enjoying nature/nature appreciation, overcoming nature, environmental education, novelty, escapism, and socialization (Azevedo, 2023). Because Nazaré provides an environment with these characteristics, surfers seek it out as a "must-surf" destination.

Nazaré also proves to be attractive for tourists seeking to watch high-risk sports. The "tourist gaze" argues that people's desires to visit a place and the ways they learn to visually appreciate those places are socially organized and are a part of sport tourism itself (Azevedo, 2023). The motivation to watch surfers riding giant waves in Nazaré can be explained by the seeking for adrenalin and thrill sensations triggered by the imminent death risk, allowing them to partake in the sport (Azevedo, 2023). Nazaré is therefore attractive to a wide range of tourists, including normal surfers, big-wave surfers, and spectators.

#### 3.1.2 Research Question and Objectives

There is a lot of research on the general impacts of tourism to communities. However, there is less data on the specific town of Nazaré. With such a unique history of what boosted tourism in Nazaré, it is important to look at the impacts that such an intensification of a new industry has on the local population. The research question is therefore: **How has the boom in surfing tourism impacted the local people of Nazaré on an economic, environmental, social, and cultural level?** The objective of this research is to identify the economic, environmental, and social and cultural impacts of tourism on the town of Nazaré, with the goal of encompassing both the positive and negative effects to embody a well-rounded analysis of tourism.

# 3.1.3 Procedure and participants

Two types of sources to collect the data. I used online National Statistics Data to identify the economic impacts of tourism in Nazaré, and used interviews, both online and in person, to identify the environmental, social, and cultural impacts. I used National Statistics Data and PORDATA to identify the economic impacts, as well as utilized them for the analysis of waste impacts. I then collected data about the environmental, social, and cultural impacts through interviews with locals, the Nazaré Municipality, and the Garrett McNamara Foundation. Data about locals in Nazaré and their perceptions of tourism were collected through in person structured interviews on April 22. Seven interviews were conducted with members of the community, ranging from 10 to 120 minutes. The demographic makeup of interviewees was varied in terms of gender, age, socioeconomic status, occupation, and educational level, as shown in Table 3.1.3.2. Participants were asked a range of questions on Nazaré. I then had an online interview on April 28, with an anonymous leader of the Garrett McNamara Foundation, which aims to use surfing as therapy for children in under-resourced and disadvantaged neighborhoods. I asked questions directly about the foundation and its impacts, as well as questions about surfing tourism with the objective of gaining another perspective on its impacts. Then, there was an interview with the Nazaré Municipality to gain information on the environmental and social impacts of tourism intensification, through data on solid waste, investments in public municipalities, and employment. I asked two of the same general questions about tourism in Nazaré in all three interviews to gain different perspectives- government, foundation, and locals- on the overall view of tourism and its impact on their connection to the community. These two questions are listed below.

- What are the most significant changes you have witnessed as a result of tourism?
- How does tourism-related changes affect your connection to the community?

Table 3.1.3.1: Questions asked that were specific to the target audience.<sup>1</sup>

Locals in Nazaré	Goal of Question	Garrett McNamara Foundation	Goal of Question	Nazaré Municipality	Goal of Question
Q1-How would you characterize Nazare 15 years ago before the big wave discovery?	How locals viewed their town before tourism-positively or negatively?	Q1-How does your foundation foster mental, physical, and spiritual connections to nature?	Background information in relation to the foundation and its goals	Q1-What is the current tourist income flow per year in Nazare?	Changing tourism numbers
Q2- How would you describe Nazare now?	How has their attitude and relationship	Q2-How do you think this	Effect of surfing tourism campaigns on	Q2-How has the investment in public	Impact of tourism on public municipalities

<sup>&</sup>lt;sup>1</sup> Sentences in italics describe the objective of the question in relation to my research goals.

	towards the town changed as a result of tourism?	foundation's goal carries over into the local population in Nazaré?	community in Nazaré	municipalities changed since 2011? How attributed is this to tourism flows?	and infrastructure
Q3- How do you feel about surfing tourism within Nazare?	Feeling towards tourism- social impacts	Q3-What changes have you witnessed among the youth in Nazaré as a result of surfing?	Effect of surfing tourism on local population	Q3-What is the current urban waste management plan? How has this changed since 2011?	Impact of tourism on environment
Q4- What words come to mind when you think of tourists in this area?	Feelings towards tourists in the area- social impacts	Q4-How does surfing change the relationship between people and the environment?	Environmental Impacts of surfing tourism in regards to environmental stewardship	Q4-How has town council expenditure on culture and sports changed since 2011? Do you attribute this at all to an increase in surfing tourism?	Impact of tourism on public investment and social and cultural values
Q5- Does how you view tourists affect your support for the tourism industry?	Feelings towards tourism within the community- whether or not they support or oppose it	Q5-With an increase in surfing tourism in Nazaré, how do you believe it affects the local community, both positively and negatively?	Overall impact of surfing tourism on Nazaré community as a result of this foundation	Q5-How has Nazare's revenue changed since 2011?	Economic Impact
Q6- How has the inflow of tourists affected you personally?	Social Impacts on a more personal level	N/A	N/A	Q6-It says on the PORDATA website that unemployment rates as a percentage of the population have dropped from 8 to 5% from 2011 to 2021. Why have these numbers decreased- is this attributed at all to an increase in the tourism industry?	Economic impact through employment opportunities
Q7- Have you learned anything from local tourists?	Cultural Impacts	N/A	N/A	N/A	N/A
Q8- Have your values or interests changed as a	Cultural and social impacts on a personal level	N/A	N/A	N/A	N/A

result of tourist interactions? How so?					
Q9- What do you think about the negative environmental impacts as a result of the increase in tourism?	Environmental impacts	N/A	N/A	N/A	N/A
Q10- What are the most negative environmental impacts from tourism?	Environmental impacts most felt by population	N/A	N/A	N/A	N/A

Table 3.1.3.2: Demographics of Nazaré Locals that participated in interviews

Participant Number	Gender	Age	Education Level	Occupation	*Stated* Socioeconomic Status
1	Female	23	College Degree	Student and Bank Worker	Lower
2	Male	36	Masters	Engineer	Middle
3	Female	29	College Degree	Praia Do Norte Clothing Brand and Museum	Upper
4	Male	36	College Degree	Business Owner	Lower
5	Female	49	Part of College	Store manager, Big Wave Safety Company	Middle
6	Female	25	High School Diploma	Sales	Middle
7	Male	31	High School Diploma	Restaurant Worker	Middle

I connected the answers to these interviews heavily to "Residents Perceptions of the Cultural Benefits of Tourism" and statistics from PORDATA, as well as drew lightly from numerous other articles.

#### 3.1.4 Limitations

One of the largest limitations was that I did not receive answers from locals in the community above the age of 50 because they did not speak English when I approached them. This puts a large limitation on my study because my sample does not accurately represent the entire population and is missing important and likely different perspectives. Similarly, there was a language barrier with many of my participants, as some were not fluent in English. This led to inconsistencies in the understanding of my questions and impacted the answers given. For example, a couple of participants answered different questions with the same response because they sounded identical to them. If not confident in their English, participants would also answer with "yes" or "no" or give less descriptive answers. This reduces the amount of information retrieved to encompass the participants whole feelings towards tourism. Another limitation to this study was that I did not account for how long the period of residency each participant had within Nazaré. A local who has lived there for a couple months versus one that grew up and lived there their whole life will have different answers and perspectives.

Another limitation to this study was the short period of research time. I was only given one month to retrieve all my data and write my conclusions and paper. This limits the amount of participants I was able to interview, thus reducing representativeness of the population. Only 7 random interviews with locals are being used to represent a whole town's perspective on tourism within Nazaré

Another limitation to my study was that the Nazaré Municipality never answered. After numerous calls and emails, there was no response to my interview questions. Unfortunately, this omits perspectives from the government, reducing the representativeness of my data. My results and discussion are based on only interviews with locals and the foundation, as well as publicly available data.

#### 3.1.5 *Ethics*

The study had several ethical considerations when conducting the data collection and data analysis. The interview questions were constructed to analyze the social, cultural, and environmental impacts of surfing tourism through personal questions about perspectives, values, and opinions. In order to ensure the protection of participants and their answers, I asked for verbal consent before proceeding as well as established anonymity with their answers. No names or personal information, other than basic demographics, were collected. In addition, in order to make participants feel comfortable with sharing personal stories and information, I did not use a recording device, but rather wrote important information down by hand. This established a more relaxed and comfortable environment for the participants to share freely. Lastly, research was approved by the School for International Training Institutional Review Board to ensure that the national and international ethical standards have been met and passed.

#### 4. Results and Discussion

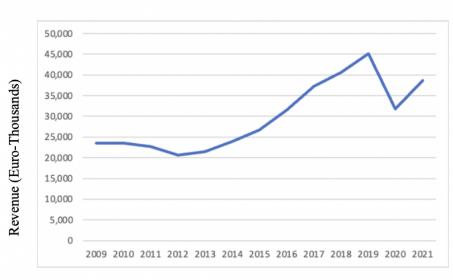
"It is not just the wave. There is more to share and use from tourism." *Anonymous* 

# 4.1 Impacts of Surfing Tourism on Nazaré

# 4.1.1 Economic Impact

The boom in surfing tourism had impacts on many parts of the economy in Nazaré. As shown in Graph 4.1.1, since 2011, there was a steady increase in revenues related to accommodations and catering services in the tourism industry. There was a sudden decrease by a value of 13,000 (Euro-Thousands) in the year 2020, as a result of the COVID19 pandemic, but quickly started to increase again to a value of about 39,000 (Euro-Thousands) in 2021. Revenue was thus brought in by an increase in accommodations and services to support the growing number of tourists in the area.

Graph 4.1.1. Economic Activity Sector: "Accommodations, catering, etc." from year 2009 to 2021. (PORDATA, 2023)



Economic Activity Sector: "Accommodations, catering, etc." from year 2009 to 2021.

This is supported by locals' responses to questions regarding changes to Nazaré as a result of the boom in tourism. Five of the participants described Nazaré as having people all year round versus just during the summer months. The phrase, "more people in the winter, not just the summer" was used multiple times in different ways. This is because the "Big Wave Season" is from mid-October to mid- February, reducing the seasonality of Nazaré as solely a summer destination. In addition, three of the participants said that without tourism, they would not have a job. All seven participants described Nazaré as having more economic opportunities and activity

Year

as a result of tourism. Phrases such as, "it brings people to the restaurant/ store/ business" and "more money" were used to describe the impact of tourism on Nazaré.

There are also negative impacts to the economy, including to the housing market. Two participants described seeing an increase in rent prices and having trouble finding long-term leases. Phrases, such as "increase in the values of the houses" and "few houses available for long term" were used. With more leases and rentals geared towards short-term tourists, it reduces locals' ability to live in Nazaré at a decent price. This is because, "the large difference between the returns of short- and long-term rentals [creates] an incentive for local and foreigner property owners to rent entire buildings/dwellings as short-term rentals" (Franco et al., 2021). Thus, property owners take advantage of the opportunity to rent to tourists, rather than residents.

#### 4.1.2 Social Impact of Surfing Tourism

Based on the interviews with locals, tourism has generally increased feelings of place attachment to Nazaré. Responses to how participants felt about surfing tourism included many positively affiliated words, such as "feels good", "growth", "proud", and "incredible". Reasons behind such a positive feeling towards tourism included it adding value to their home and making them proud and happy that others wanted to visit their hometown. In addition, when asked how tourism-related changes affect your connection to the community?, three participants said that it did not affect it at all, and four said it increased their connection due to reasons said above. This is supported by the idea that, "tourism exposes the host to other cultures and can result in benefits such as tolerance and understanding... The act of presenting one's culture to outsiders strengthens the idea of what it means to live within a community, thus increasing identity, pride, cohesion, and support," thus increasing attachment to place (Besculides, 2002). Similarly, there was a positive relationship between tourism and place attachment according to the Garrett McNamara Foundation. When asked the same question, they responded with: "We see it as an opportunity. A chance to share with people information about the ocean, about protecting it and how we can all play our part. We have some really exciting projects lined up to share with visitors and educate them on the importance of taking care of this place we love whether as a visitor, long time resident or new in town, we all have a responsibility to protect it." They believe that tourism offers more opportunities to connect the community, strengthening local's bonds to their home. Thus, there are benefits to tourism in Nazaré, including "increased pride and identity [and] cohesion" (Besculides, 2002). Tourism has been found to improve the quality of life of the residents as well as to enhance the sense of place (Besculides, 2002).

#### 4.1.3 Cultural Impact of Surfing Tourism

# 4.1.3.1 New relationships

There is a major cultural impact of tourism on the culture of Nazaré. Tourism is creating a new relationship between people and their town. Below is a list of common answers/words describing Nazaré now versus 15 years ago, before the surfing tourism boom. These words and phrases are pulled from the interviews with locals.

Nazaré 15 years ago	Nazaré now
"No people"	"Big village"
"Strong tradition"	"Many people"
"Fishing"	"A city that you can find on the map"
"Quiet"	"A lot of tourism"
"Old people"	"People all year round"
"Women helping sell fish"	"Vacation place"
"Women waiting for husbands"	"Famous for big waves"
"Nothing"	"Easy for others to come to"
"Lost village"	"Biggest waves in the world"
"Empty"	"Different"
"Ghost town"	"Exploded"
"Everything was closed in the winter"	"Breathes and lives because of surf"
"Different, but beautiful"	"Revived"

Based on these description words, there is an obvious difference between perspectives and feelings towards Nazaré before and after the intensification of tourism there. Before, people chose words and phrases related to lifelessness, such as "quiet", "old", "nothing", "lost", "empty", "ghost", and "closed". After, many participants began using words ro describe a town that exhibits life, such as "breathes", "lives", "revived", "city", and "people". They also began using words strongly associated with big waves and surf. Surfing and surf tourism thus changed the locals' depiction of Nazaré because they ultimately changed Nazaré and its characteristics.

Similarly, according to the Garrett McNamara foundation, surfing tourism is establishing a new relationship with the ocean. Multiple answers to questions included such a perspective:

- "The population in Nazare is an incredible group. They have a very different view of the ocean though based on their past and relationship to it. Through the Waves of Life we are supporting the next generation in a direction of trust and love for the ocean rather than fear."
- "It has grown immensely but in a welcomed way. Business, restaurants are flourishing. There is a happy, welcoming energy that was not there before. The

fear of the water is subsiding - a divot respect for it remains but also seeing the fear disappear has been really healing."

Here, we can see that tourism is fostering a positive relationship with the ocean because it embraces it rather than fears it, resulting in a healing process among the community.

# 4.1.3.2 Cultural Exchanges

Based on interviews with locals, there is a general positive relationship between culture and tourism. Participants described cultural exchanges, including gaining new perspectives, learning new languages, and sharing stories. Below is a list of answers related to each of these three categories.

#### New perspectives

- "The people now are more open to others and cultured from those 20 years ago." (Participant 1)
- "People used to have a closed point of view, but the vision is wide now." (Participant 2)
- "I use others' points of view to compare where I am now. I want to travel more, see other places, things, and cultures. I personally do not like Portuguese culture because it is too close-minded." (Participant 3)
- "Our interests are more around people and culture now." (Participant 2)
- "Some old people do not like tourism because they don't understand it, but younger people do and for the most part, people are receptive to new things that come because new things are good." (Participant 6)

# Learned skills and language

- "People can now talk to each other in different languages." (Participant 2)
- Three out of seven participants discussed learning French from tourists (Participants 3,4, &6)
- "I learned how to snowboard from a tourist I met here from Sweden." (Participant 2)

#### **Sharing Stories**

- "It is important for a tourist to come because they always have a history to tell about their place." (Participant 2)
- "It is very important that we share feelings, knowledge, and stories. We all have different stories, but the feelings are the same." (Participant 5)
- "My connections with tourists are usually stronger than typical 'Nazareans' because of what I feel comfortable sharing." (Participant 4)

Similarly, when asked *What are the most significant changes you have witnessed as a result of tourism?* The Garrett McNamara Foundation responded with: "'Life, the exuberant spirit seems to have arrived and communities from all over the world gather here to celebrate surfing, the

ocean and all that brings with it. Over the past few years we have witnessed more people discovering and falling in love with Nazare. More people embracing the traditions, exploring the history and supporting the big wave surf community." Here, it is emphasized that tourism has increased appreciation for Nazaré due to an increase in cultural exchanges.

These results are deeply connected to previous studies. First, tourism leads to an increase in new perspectives because, "interrelation fosters a cross-cultural communication that can promote understanding between the host and guest... residents are educated about the outside world without leaving their homes, while their visitors significantly learn about a distinctive culture" (Besculides, 2002). Therefore, there is a mutually beneficial relationship between host and guest by exposing each other to other ways of living and viewing the world. In relation to an increase in learned skills and languages, studies have found that, "particularly the young, enjoy meeting outsiders on a regular basis, exchanging views and enthusiastic other languages" (Sandeep & Vinod, 2014). Tourism gives locals the opportunities to learn other languages through consistent exchanges with people from another part of the world. Lastly, because tourism leads to more cultural exchanges and interactions, it also leads to the sharing of stories. Because "tourism exposes the host to other cultures and can result in benefits such as tolerance and understanding," it allows the comfortability of telling and listening to each other's stories (Besculides, 2002). This can result in increased knowledge and trust between individuals.

# 4.1.4 Environmental Impact of Surfing Tourism

There are both positive and negative environmental consequences to an increase in surfing tourism in Nazaré. Air pollution, noise pollution, untreated wastewater, solid waste and litter are all components of pollution that result from the accumulation of tourism-related activities (Wong, 2004). When asked what environmental impacts residents have witnessed, answers included: garbage on the beach, waste water, noise pollution, and air pollution. Three participants described an increase in garbage on the beach and in town because many tourists are not "environmentally polite", "do not know how to properly recycle", and/or "do not care because they do not live there" (Participants 1, 3, 6). This is because visitors are less likely to take care of a place that they do not get to live in long term. One participant described an increase in waste water as a result of hotel accommodations and construction. Two participants described an increase in noise and air pollution as a result of an increase in buses and cars throughout town. "Tourism-related road and air travel adds to the cumulative impact of climate change," as it leads to an increase in CO2 emissions (Wong 2004). This impacts the quality of the air in Nazaré and therefore quality of life there. In addition, the noise pollution can create mental and physical strain for those who live there.

In support of local's perceptions of increased solid and water waste, in 2011, there was an average of 36 kilograms of urban waste collected from each inhabitant (Instituto Nacional Estatistica Portugal, 2023). With a population of 15,158, this equates to 545,688 kilograms of urban waste in the year 2011 (PORDATA, 2023). In the year 2021, the average amount of urban waste collected per inhabitant rose up to 104 kg in Nazaré (Instituto Nacional Estatistica

Portugal, 2023). With a population of 14,881 people in 2021, this equates to 1,547,624 kilograms of urban waste in the year 2021 (PORDATA, 2023). This is almost three times the amount of urban waste than in the year 2011. Thus, we can conclude that there is an increase in waste as tourism increases in Nazaré, which has resulted in more pollution throughout waterways, beaches, and public areas as well.

Table 4.1.4: Urban waste selectively collected per inhabitant (kg/ inhabitant) by geographic location (National Statistics Data, Accessed April 23, 2023)

Localização geográfica (NUTS - 2013) (1)			Residuos urbanos recolhidos selectivamente por habitante (ltg/ hab.) por Localização geográfica (NUTS - 2013); Anual (3)									
			Período de referência dos dados (2)									
		2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
		kg/ hab.	kg/ hab.	kg/ hab.	kg/ hab.	kg/ hab.	kg/ hab.	kg/ hab.	kg/ hab.	kg/ hab.	kg/ hab.	kg/ hab.
Continente	1	114	109	107	102	88	76	70	62	56	64	72
Nazaré	16B1011	104	112	117	100	62	40	48	31	30	32	36
Resíduos urbanos recolhidos s	electivamente por habitante (kg/ hab.) por Localizaç	ão geográfica (NUTS - 2013);	Anual - INE, Estatístic	cas dos resíduos urbano	06							

On the other hand, an increase in specifically surfing tourism can lead to an increase in environmental stewardship. For example, when asked how surfing changes the relationship between people and the environment, the Garrett McNamara Foundation responded with: "Surfing is a reminder that we are not separate. We are part of nature together. It connects us with the ocean in such a way that we cannot deny the impact we have on each other." The foundation also has projects that educate both locals and visitors on their responsibility to protect the ocean and all that it provides. This is supported by the idea that in a study done by Langseth & Vyff 2021, 85% of surfers described themselves as environmentally conscious because they are in nature so frequently (Langseth & Vyff , 2021). With an increase in surfing tourism in Nazaré, there are more people acting within and appreciating nature and the ocean. This leads to a population that is more environmentally conscious and likely to take care of it.

#### 5. Conclusion

#### 5.1 Implications

There are numerous implications for the economic, social and cultural, and environmental impacts of tourism in Nazaré. First, the increase in economic activity leads to both positive and negative processes and scenarios. The increases in economic revenue in Nazaré expands the number of opportunities for the young to stay within the town. It also increases the likelihood of investment in public and private infrastructure. However, with rent prices increasing, there is a high likelihood of gentrification and the pushing out of families that have lived there for generations. With social and cultural changes, Nazaré is slowly evolving to become less traditional and more open to other perspectives. However, they have the unique opportunity to preserve their traditional culture while simultaneously sharing it with others who visit. What's more, with an increase in worldly interactions, the people of Nazaré have the

opportunity to learn from others without leaving the comfort of their home. Lastly, environmental issues pose questions about the sustainability of the tourism that exists there. In order to move forward in a way that protects both the environment and people, there needs to be a plan that embraces both "sustainable tourism" and "environmental stewardship".

# 5.2 Recommendations for Future Research

There are a variety of directions that future studies could take to supplement the work done in this study. This study provides a comprehensive analysis of the economic, environmental, and social and cultural impacts of surfing tourism in Nazaré. However, a future study could also focus on the mental and spiritual components. This would provide more of a background into the direct impacts on personal lives within the local population.

In addition, my study could be replicated with more participants to create a more representative sample. My study lacked quantity and so increasing the sample size would encompass more opinions and perspectives. Specifically, this study could be replicated within the older generation in Nazaré. Generally, they were excluded from my sample due to language barriers. However, this sub-genre of the population has a unique history with the ocean and fishing industry and could provide a completely different perspective on tourism.

A study could also be done to compare Nazaré to other communities within Portugal that experienced similar transitions and surfing tourism booms, such as Ericeira. This would create more context for the impacts of surfing tourism within Portugal and whether or not it has similar impacts regardless of region.

#### References

- Azevedo, A. (2023). Pull and push drivers of giant-wave spectators in Nazaré, Portugal: A cultural ecosystem services assessment based on Geo-tagged photos. *Land*, *12*(2), 360. https://doi.org/10.3390/land12020360
- Besculides, A., Lee, M. E., & McCormick, P. J. (2002). Residents' perceptions of the cultural benefits of Tourism. *Annals of Tourism Research*, *29*(2), 303–319. https://doi.org/10.1016/s0160-7383(01)00066-4
- Blešić, I., Pivac, T., Kovačić, S., Cimbaljević, M., Lukić, T., Bubalo Živković, M., Đerčan, B., & Bjelajac, D. (2022). Place attachment, cultural involvement, and residents' attitudes towards tourism development: The case of novi sad, the European Capital of Culture 2022. *Sustainability*, *14*(15), 9103. https://doi.org/10.3390/su14159103.
- Bradshaw, L. (2021). Surfing the innovation waves: Surf tourism in Portugal. *Tourism, Hospitality & Event Management*, 149–166. https://doi.org/10.1007/978-3-030-80733-7
- Camarda D. (ed.), Grassini L. (ed.) (2003). Environmental Impacts of Tourism. *A Companion to Tourism*, 263-270
- Carmo, J. S. (2022). Dominant processes that amplify the swell towards the coast: The Nazaré Canyon and the Giant Waves. *Research, Society and Development, 11*(11). https://doi.org/10.33448/rsd-v11i11.33804
- Conheça o seu município. PORDATA. (n.d.). Retrieved May 1, 2023, from https://www.pordata.pt/municipios
- Cunha, P.P., & Gouveia, P. M. (2015). The Nazaré Coast, the Submarine Canyon, and the Giant Waves: A Synthesis. *Marine and Environmental Sciences Center*, 1-32.
- Godinho , A. M. (2019, October 18). *The growing importance of surfing for the tourism sector*. The Portugal News. Retrieved May 1, 2023, from https://www.theportugalnews.com/news/the-growing-importance-of-surfing-for-tourism-sector/51636
- Franco, S. F., Santos, C., & Longo, R. (2019). The impact of Airbnb on residential property values and rents: Evidence from Portugal. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.3387341

- Langseth, T, & Vyff, A. (2021). Cultural Dissonance: Surfers Environmental Attitudes and Actions. *Frontiers in Sports and Active Living*. https://doi.org/10.3389/fspor.2021.695048
- Larson, L. R., Usher, L. E., & Chapmon, T. (2017). Surfers as environmental stewards: Understanding place-protecting behavior at Cape Hatteras National Seashore. *Leisure Sciences*, 40(5), 442–465. https://doi.org/10.1080/01490400.2017.1305306
- Martin, S. A., & Assenov, I. (2012). The genesis of a new body of Sport Tourism Literature: A systematic review of Surf Tourism Research (1997–2011). *Journal of Sport & Tourism*, 17(4), 257–287. https://doi.org/10.1080/14775085.2013.766528
- Moniz, Salvador Do Canto Moniz Martins. (2019). The Impact of Surfing on Tourism in Portugal: Case Study with pedagogical note. *Instituto Universitario de Lisboa*, 1-115.
- Påhlsson, C., Sjöberg, H. (2019). The Place of Meaningfulness: A Study about how tourism affects the residents' place attachment in Mirissa. *University of Gothenburg*
- Portal Oficial Instituto Nacional de Estatística. Portal do INE. (n.d.). Retrieved May 1, 2023, from https://www.ine.pt/xportal/xmain?xpgid=ine\_main&xpid=INE
- Russo, M. A., Relvas, H., Gama, C., Lopes, M., Borrego, C., Rodrigues, V., Robaina, M., Madaleno, M., Carneiro, M. J., Eusébio, C., & Monteiro, A. (2020). Estimating emissions from Tourism Activities. *Atmospheric Environment*, *220*, 117048. https://doi.org/10.1016/j.atmosenv.2019.117048
- Sandeep, K. & Vinod, K. (2014). Perception of Socio-Culture Impacts of Tourism: A Sociological Review. *International Research Journal of Social Sciences*. Vol. 3(2), 40-43
- Theobald, W. F. (2005). Global tourism. Elsevier.
- Weiser. N. (2019). Causes and Development Impacts of the Tourism Boom exemplified by Nazaré. *University of Graz*, 1-146.
- Wong, P. P. (n.d.). Environmental impacts of tourism. *A Companion to Tourism*, 450–461. https://doi.org/10.1002/9780470752272.ch36
- World Travel Awards 2022 Europe winners. World Travel Awards. (n.d.). Retrieved May 1, 2023, from https://www.worldtravelawards.com/winners/2022/europe
- Zhuang, X., Yao, Y., & Li, J. (J. (2019). Socio Cultural impacts of tourism on residents of World Cultural Heritage Sites in China. *Sustainability*, *11*(3), 840. https://doi.org/10.3390/su11030840