

Finding well-being through a Mindfulness Photography Experience in Finnish Forests

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Abstract



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Urbanization is a global megatrend that will continue to grow. Although living in cities brings certain improvements to individuals' quality of life, there are some downsides as well. The urban setting, contrary to the natural environment, is characterized by continuous demanding stimuli that generate a more stressful social environment in which the risk for poor health conditions and chronic disorders increases.

The author reviewed existing literature that supports the idea that human exposure to the natural environment brings physical and psychological benefits and, thus, nature is considered a restorative environment. Moreover, wellness travelling, especially related to nature, has already been a big trend over the past years, as people are becoming more and more health-conscious. Finland aims to become the most sustainable growing tourism destination in the Nordics, focusing particularly on its pure nature and creating products that promote wellbeing.

Based on the literature, the author designed, delivered and evaluated an experience of Mindfulness Photography in Finnish Forests, as main objective of her thesis. The aim of the experience was to deliver an enjoyable, educational, and relaxing activity that would increase the overall sensation of wellbeing for participants. The author used photography as a tool to practice mindfulness and to promote self-awareness of the present moment and own surrounding.

Mindfulness photography differs from the common method of photographing in the sense that individuals engaging in the activity become attentive observers of their surroundings. They walk with open eyes and open minds, and without expectations, ready to welcome whatever sensation the enchanting natural environment inspires them.

The experience took place around the Maunula nature trail in Keskuspuisto, Helsinki. The author organized seven tours in March 2021, for a total of 9 participants. The author used self-report questionnaires and semi-structured interviews as methods to collect data from participants. The author then made conclusions based on the comparison between findings, the literature and her personal goals.

The results of the research showed that the Experience of Mindfulness Photography in Finnish Forests is an enjoyable activity that promotes a connection with the natural environment, boosts positive feelings, such as gratitude towards one's own life, and enhances relaxation, giving participants a break from the busy routine as well as a sense of psychological distance from the stressful urban environment.

Keywords

Well-being, nature, forests, mindfulness, photography, experience design

Table of contents

1	Intro	duction	າ	1		
	1.1	Aim, d	bjectives and success criteria of the thesis's project	3		
	1.2	Metho	ods	5		
	1.3	Key to	ppics of the project	6		
2	The	benefit	ts of exposure to the natural environment for human's well-being	8		
	2.1	Physic	ological benefits of exposure to nature	8		
	2.2	Psych	ological benefits of exposure to nature	11		
		2.2.1	Attention Restoration Theory (ART)	11		
		2.2.2	Nature as a remedy to Directed Attention Fatigue	13		
3	Min	dfulnes	s applied in nature to achieve well-being	17		
	3.1	A brie	f overview of the mindfulness concept	18		
	3.2	Comn	non path between mindfulness and ART	20		
	3.3	Mindf	ulness applied in nature: the techniques of ReSTS and Shinrin-yoku	22		
4	The	wellbe	ing travel trend and Finland as well-being tourism destination	26		
	4.1	Defini	ng the well-being travel trend	26		
	4.2	Well-k	peing travel and nature in nordics	27		
	4.3	Finlar	nd as a well-being leading tourism destination	28		
		4.3.1	Easy access to green areas and forests	31		
		4.3.2	The cleanest air	32		
		4.3.3	Blessed with silence	33		
5	Plar	nning, e	xecution, and evaluation of the product	36		
	5.1	Projec	ct planning phase	36		
		5.1.1	Experience design	37		
		5.1.2	The future of transformative travel experiences	41		
		5.1.3	The use of photography as a tool to practice mindfulness	42		
		5.1.4	Product description	45		
	5.2	Projec	ct execution phase	48		
	5.3	Projec	ct evaluation phase	51		
		5.3.1	Methods utilized for collecting data	51		
		5.3.2	Findings of the self-report questionnaires	55		
		5.3.3	Findings of the semi-structured interviews	57		
6	Disc	cussion		59		
	6.1	Reflec	ctions on the outcomes of the project	59		
	6.2	Project evaluation and ideas for further implementation				
	6.3	Learn	ing outcomes	65		
R	efere	nces		67		

Appendices	82
Appendix 1. Handbook of the experience	82
Appendix 2. Photo collage of the project	92
Appendix 3. Facebook invitation post to the experience	93
Appendix 4. Structure of the tours	94
Appendix 5. Perceived well-being questionnaire. Pre-experience	95
Appendix 6: Perceived well-being questionnaire. Post experience	99
Appendix 7: Semi structured interview	102

1 Introduction

The global megatrend of rapid urbanization, which is impacting on a deep level the way people live and work, will continue to grow. In 2050 it is estimated that around 66% of the world's population will live in cities (WHO, 2020). In Finland most of the population will be gathered in a few large cities, meanwhile the countryside areas will face a decline of residents (Sitra, 2020). This continuous process has changed humans' living environment, increasing detachment from the natural setting and favouring urban settings which, nevertheless, remains an unfamiliar environment for the human body (Jo, Song & Miyazaki 2019, 1).

Kaplan (1987) and Ulrich (1991) are the most cited researchers around the topic of nature as preferred environment. Their important studies support the theory that the natural environment is more related to humans than urban settings. People have lived longer in nature than in cities and therefore, they feel more adjusted to the first one. From an evolutionary perspective, humans respond more positively to natural elements since those have provided them with safety and wellbeing, during evolution (Ulrich & al. 1991, 205).

Since humans' physiological functions are best suited to the natural environment, the modern highly urbanized and artificial setting is one of the causes of stress among people (Song, Ikei & Miyazaki 2018, 1). Surely urbanization brought many improvements to people's living conditions. For instance, better sanitation and health care as well as more job opportunities. Nevertheless, repeated studies link the city lifestyle with a more demanding and stressful social environment and with increased risk for poor health conditions and chronic disorders (Lederbogen & al. 2011, 498). A Meta-analysis combining the results of 20 population survey studies in high income countries showed that city residents have higher risks of anxiety disorder (21%) and mood disorders (39%), compared to people living in rural areas (Peen, Schoevers, Beekman & Dekker 2010, 91).

Over the past decades, researchers all over the world have been conducting studies to demonstrate that nature brings more restorative effects than urban environments. Exposure to nature showed positive changes in mood as well as physiological changes, typical of a stress recovery phase, like lower blood pressure, muscle relaxation and slower heart rate. Majority of the empirical studies reviewed showed that natural environments are in general preferred to build environments and that the natural environment has better restorative effects compare to the built one (van den Berg, Koole & van der Wulp 2003; Hartig, Evans, Jamner, Davis & Gärling 2003).

The main reason behind years of research is the desire to increase the wellbeing of the urban population, bringing back an almost forgotten nurturing relationship with the natural environment and thus, to find solutions, to help individuals to cope with the stress of the modern lifestyle. As a result, nature therapy, a set of techniques that induce in people a sense of relaxation, has been gaining recognition as a method to prevent healthcare (Song, Ikei & Miyazaki 2016, 2). In some countries, nature therapy is also prescribed side by side with official medicine, for instance to relieve pain and help to recover from illnesses (Louv 2011, 86).

The topic has deeply inspired the author to further her research in this paper and to create an innovative product for promoting wellbeing and relaxation. Thus, the purpose of the thesis, which is produced in a project form, is to create an experience of mindfulness photography in Finnish forests that can be promoted to tourists visiting Finland, as well as to residents living in the Helsinki area. The product will combine the restorative effects of exposure to a natural setting with the benefits of mindfulness exercises, using photography as a tool to connect with the present moment and the surrounding.

The theoretical background is important for the author, to acknowledge what studies have been carried out so far, regarding the positive effects of spending time in nature for human's physiological and psychological wellbeing. For the development of the product, the author will narrow the research on those theories that support how the view of elements in nature engage individuals in what is defined as an effortless mode of attention (Kaplan 1995, 171) which leads to a sense of relaxation. Furthermore, bringing full attention to the details of the natural environment generates an immersive and gratifying process called by environmental psychologists Lumoutumisen kokemus or experience of enchantment (Arvonen 2014, 21). The interconnection between the concept of mindfulness and the cognitive effects of being exposed to a natural environment will also be explored.

Although mindfulness has only recently become a popular trend in western medicine and psychology, this practice is very ancient and was already in use in eastern philosophies such as Buddhism (Tobler & Herrmann 2013, 2). The goal of mindfulness is to bring a sense of relaxation and to teach control over those overwhelming emotions that undermine the physiological and emotional wellbeing of individuals. Since there are numerous ways to practice mindfulness, the author will research methods which utilize the elements present in nature to maintain focus on the present moment. Moreover, the theoretical background also helps the author to explore the possibility of utilizing photography as a tool to practice mindfulness. In fact, the technique of photographing

involves a lot of attentiveness since it implies mostly observation of the surroundings and attention to the details. Finally, the theoretical background can prove the relevance of the product for the travel industry and its suitability in the context of Finnish nature.

The project is relevant for several reasons. Wellness travelling has already been a big trend over the past years, as people are becoming increasingly health conscious. Finland aims to become the most sustainable growing tourism destination in the Nordics, focusing particularly on its pure nature and creating products that promote wellbeing. Therefore, the product of the thesis has the potential to enrich the variety of services offered for tourists and to enhance the positive image of Finland as a well-being destination. Furthermore, the product is innovative, since there are not similar experiences offered, at least in Finland, at the moment. For this reason, the author hopes that her thesis will mark the start of a journey as a foreigner entrepreneur in Finland.

Finally, the project represents a chance for the author to combine several passions into a product that could be beneficial for people. The way is to share simple actions the author has learned and applied to herself, without the presumption of creating a form of therapy. Moreover, her wish is to promote a connectedness with nature based on love and respect. These values have been part of the author's identity since childhood.

As a degreed photographer, the author already explored, in 2014, the topic of the importance of spending time in nature for children. The author's photographic project "Skyd Nature" (Kolding, Denmark 2014) aimed to bring awareness, through the eyes of children, about the intense sensation of awe that humans experience in front of the simple and changeable elements of the natural environment that surrounds them.

Mindfulness has only recently become a research object, as the author is intensively working on simple ways to improve her emotional and psychological wellbeing. Living in a foreigner country alone is not an easy task but the author seems to have found her way to connect with Finnish culture. As per many Finns, her bond with nature has become much stronger. She, for instance, developed awareness of her body's responses to the changing seasons or started enjoying spending time alone in the forest, rather than be surrounded by other people.

1.1 Aim, objectives and success criteria of the thesis's project

The thesis is product based and the main outcome is to design, delivery and evaluate the Experience of Mindfulness Photography in Finnish Forests. Participants are expected to

spend quality time on their own, although the author will give an introduction and guide participants through the completion of several photographic tasks. The idea behind the tasks designed by the author is to draw up a guideline which should facilitate the experience. Before each task, the author will try to engage participants with interesting food for thought, to encourage a creative process and to help them achieve the best outcome. Moreover, the author will design a handbook in the form of a PDF document, (see Appendix 1) which will be sent after the event, as a reminder of the experience. The author wishes to inspire participants, to try again and on their own the practice of mindfulness photography.

The main purpose of the Experience of Mindfulness Photography in Finnish Forests, designed by the author, is to deliver an enjoyable, educational, and relaxing activity that will increase the overall sensation of the emotional and mental wellbeing of participants. The educational element is due to the act of promoting self-awareness of the present moment and the use of photography as a tool to practice mindfulness.

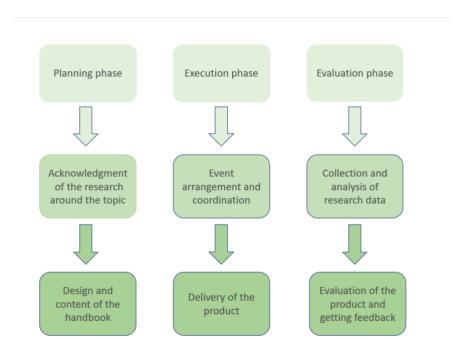


Figure 1. Project phases and related sub objectives

The whole project is divided into three phases: planning, execution, and evaluation. Each phase includes several sub objectives that need to be achieved to complete the project. Sub objectives will also help the author to navigate the entire process. As shown in figure 1 the planning phase consists of the exploration of the previous studies around the topic and the main objective is the design of the handbook. The execution phase has the delivery of the product as the main objective and includes all the arrangements made by

the author, including finding the location and selecting and coordinating the participants. Finally, the evaluation phase reports the collection and analysis of the research data and it is important to assess whether the outcome of the experience meets the predicted and desired results.

Defining the criteria to evaluate the success of the project will also facilitate the author in writing the final discussion and the learning outcomes. The first measure is to define whether the project has been completed in the forecasted schedule, to allow the author to graduate within the agreed time. The second measure is to determine if the handbook has been completed and the product has been delivered successfully. Finally, the third measure of evaluation will be to assess whether the product was pleasant, educative, and beneficial for the participants.

1.2 Methods

The review of the existent literature and empirical studies about the restorative power of the natural environment serves the author to deepen her knowledge about the topic and to design the experience as well as the handbook. The literature about the possible connection between mindfulness and restorative effects of the view of nature clarifies and helps the development of the product. Furthermore, research on well-being travel trends and the commitment of Finland to become a well-known well-being destination proves the need for the product for the market.

To validate the restorative effects of the experience for participants, the author will use two different methods for collecting data. The author hypothesizes that the experience of mindfulness photography in Finnish forests, which combines mindfulness and photography techniques will create the conditions for participants, to reach a sense of calm and relaxation and thus, a perceived increase of wellbeing. Moreover, the use of the method of photography will stimulate participants' attentiveness to the environment and its details and encourage a more conscious approach to one's own thoughts and emotions. In order to assess the outcome of the experience, participants will be asked to fill in a self-report questionnaire, before and after the experience. Questions will be mostly in rated scale form to allow participants to rate their perceived state of well-being. The author found inspiration from several well-known self-assessment scales, such as the Perceived Restoration Scale developed by Hartig and colleagues (1991). To investigate deeper the response of participants and to evaluate the success of the product, the author will conduct semi structured interviews at the end of the event.

1.3 Key topics of the project

The key topics for the project thesis are:

- The restorative power of nature and its positive effects for human well-being
- The concept of mindfulness applied in a natural environment
- The method of photographing for mindfulness
- The concept of well-being nowadays and well-being as a travelling trend
- Finland as a nature well-being destination

The literature around the topic of the healing effects of the natural environment for human well-being is too wide. Therefore, the author feels the need to narrow the research to the theories that are essential for the design and development of the product. Particular attention is then paid to the empirical studies which suggest the benefits of the view of nature, since is relevant to justify the use of photography as a tool to practice awareness. Especially the thesis will review one of the most cited theory, the Attention Restoration Theory (Kaplan 1995) in which nature is considered a restorative environment as its view exercises a so-called soft fascination on humans, allowing the mind to rest. The theoretical background also briefly illustrates how some elements typical of the natural environment are themselves beneficial to humans. For instance, the quality of air in forests, the absence of noise and the presence of organic compounds which positively interact with the human's immune system. This reference is important later in the paper, to justify the suitability of the product for the Finnish natural environment, especially referred to forests.

The practice of Mindfulness is very ancient. Nevertheless, it has become popular in the western part of the globe only recently. Since the topic is huge, the theoretical background focuses on explaining the concept of being attentive to the own surrounding, thoughts and emotions and the respective benefits of practicing this technique. Moreover, nowadays there are plenty of ways to apply the mindfulness method. Thus, the author only refers to a particular technique applied in natural environments, called forest bathing, since it utilizes the elements present in nature to maintain focus on the present moment. This is relevant for the development of the product.

The technique of photographing involves a lot of attentiveness since it implies mostly observation of the surroundings and attention to the details. As a professional photographer, the author is interested in the common elements of both the act of photographing nature and the method of reaching a state of mindfulness while contemplating nature. Therefore, the author aims to create a product in which these two techniques can be combined, to bring relaxation to those individuals who seek pause from the hectic everyday life.

The trend of wellbeing travel is evolving, following the changes in people's behaviours which are influenced by nowadays society and economy. The author will explore the concept of well-being tourism which promotes untouched and pure nature destinations, as an antidote to the stressful urban environment.

Finland is a country reach of forests, with little noise pollution and one of the best air quality. Fins have a strong relationship with nature, and they are aware of the beneficial effects that spending time in nature has on their wellbeing. Analysing the available literature, the author tries to understand whether Finland is a suitable country for the implementation of the product, as well as the interest of Finland in offering products which promote its natural environment.

In addition to the key topics of this project, the author also mentions the main theories of experience economy and experience design, as they were part of her studies in Haaga-Helia. Moreover, they served as a guideline when designing the experience of mindfulness photography in Finnish forests. The new trend of transformative travel will also be explored, as it is relevant to justify the product.

2 The benefits of exposure to the natural environment for human's well-being

The amount of research around the topic of exposure to nature and the consequent health improvements for humans is impressive. Numerous factors have been observed and thus considered as potential reasons for the increased physical and mental health of individuals who have regular contact with nature. Each of them has been proved by research, to contribute at some level and under several circumstances to the positive impact of nature on individuals' health. (Ekuo 2015, 1).

2.1 Physiological benefits of exposure to nature

Some of these factors are direct components of the natural environment. There are chemicals and biological agents in nature that are known for the positive impact they have on health (Ekuo 2015, 2). Plants release antimicrobial and antibacterial compounds called phytoncides, to protect themselves from harmful insects and diseases. Several studies conducted in Japan proved that phytoncides interact with human's NK (Natural Killer) cells and boost the immune system. After finding that a 3-day forest trip significantly increased the number of NK cells in both female and male subjects (Li & al. 2007, 3), the group of researchers conducted further tests to eventually prove the long-term effects of exposure to forests. Two different experiments, conducted with 12 male (Li & al. 2008, 117) and 13 female (Li & al. 2008, 45) subjects, proved that the higher level of NK cell activity lasted in both cases, for at least 7 days after the exposure to a forest environment. In addition, an indoor study released phytoncides in a hotel room. For three nights, twelve male subjects in good health conditions were exposed to phytoncide and tested, showing a significant increase of activity in NK cells and a decrease of T cells. These last have been found in higher percentages, in subjects with unhealthy lifestyles and therefore they might reveal a stress status in individuals. (Li & al. 2009, 951.)

The sounds of nature represent an additional factor that positively influences the physiological wellbeing of individuals (Ekuo 2015, 2). Several studies have proved that sounds belonging to a natural environment, like birds' twitter or water flow, are linked to stress recovery. An experiment conducted in China with 70 participants in a state of attention fatigue showed that the restorative experience in a natural environment, which included natural sounds, had more positive effects compared to a different nature experience with respectively traffic and machine sounds. (Zang, Kang & Kang 2017, 71.) A similar study conducted in Sweden proved the positive effects of a virtual natural

environment, with both sounds and visual inputs, on participants' recovery, after voluntarily induced stress (Annerstedt & al. 2013, 249).

Seeking peace and quietness in nature can offset the annoyance caused by the noises, characteristics of the typical urban environment. While the sounds of nature seem to be perceived as pleasant, continuous exposure to man-made noise can be harmful for the wellbeing of individuals. Sound pollution represents a serious concern, since it can cause both short and long-term health problems, such as sleep disturbance, hearing impairment and cardiovascular diseases (WHO Europe 2021). According to the European Environment Agency, one in four Europeans is affected by noise levels from road traffic in a higher amount than the recommended limit by WHO, of 55 dbl. Noise pollution is estimated to cause annually in Europe 43.000 hospital admission and 10.000 premature deaths, due to hypertension and cardiovascular diseases. (EEA 2019.)

The natural environment can also reduce the negative effects of pollution on the quality of the air. Trees absorb carbon dioxide and release the oxygen that living organisms need. Furthermore, they reduce air pollution by absorbing gaseous pollutants through the leaf stomata and thus, filtering them out of the air (Novak, Hirabayashi, Bodine & Greenfield 2014, 119). These pollutants are especially sulphur dioxide (SO2), nitrogen dioxide (NO2), and particulate matter (PM10, PM2.5). They are generated mainly by human activities. For instance, energy production and distribution account for about 60% of sulphur oxides while road transport causes more than 40% of nitrogen oxides emissions. Transport, together with households, is also responsible for half of the emissions of particulate matters. (EEA 2020.) Air pollution has both a short and long-term negative impact on health, with effects which range from anxiety, irritation of eyes and nose or breathing problems to cardiovascular diseases and cancer (EEA 2020).

Although exposure to the natural environment is multisensory, visual contact with nature has been an interesting research topic so far. Numerous studies have been conducted to prove the connection between physiological relaxation and the viewing of natural landscapes or elements found in nature (Jo, Song & Miyazaki 2019, 1). Particularly, several studies have proved that participants watching forests' scenes had more positive physiological responses and felt more relaxed (Jo, Song & Miyazaki 2019, 11). For instance, seventeen female Japanese university students were stimulated visually with both forest and city scenes while monitored with an indicator of brain activity, (NIRS measurement method). The results indicated that while viewing forest images, a significant decrease of oxyhaemoglobin (oxy-Hb) concentration was registered in the right

prefrontal cortex, which essentially induces physiological calming. (Song, Ikei & Miyazaki 2018, 8.)

The view of nature is also beneficial for individuals subject to high levels of stress conditions, since arousal is reduced more efficiently, meanwhile a view of urban landscape seems to work against emotional wellbeing (Ulrich 1979, 21). One of the most cited studies showed that the length of hospitalization for patients in postoperative hospital stay was shorter for subjects staying in rooms with view of trees, compared to those staying in rooms that faced brick walls (Ulrich 1984, 420).

Exposure to nature has also been utilized to support individuals affected by work related stress. For instance, the Swedish University of Agricultural Sciences at Alnarp developed a Nature Based Rehabilitation programme consisting in traditional medical rehabilitation techniques combined with visits to nature areas, to tackle an increase of sick leaves due to stress related mental disorder (Sahlin, Ahlborg, Tenenbaum & Grahn 2015, 1930). The study, which followed patients up to twelve months after the participation in the rehabilitation programme, showed a significant decrease score of severe or moderate depression (from 52% to 21%), anxiety (from 47% up to 19%) and an increased score in well-being over the months following the start of rehabilitation (Sahlin, Ahlborg, Tenenbaum & Grahn 2015, 1944).

A different study run in the UK compared the effects of exercising alone and exercising in a green environment for 14 children of a primary school. Participants were asked to cycle for 15minutes in front of a blank screen and afterward while watching a video of a forest environment. The results measured a decrease in blood pressure following exercise in a green environment, compared to exercise alone. (Duncan & al. 2014, 3684.) In another study, researchers compared the restorative effect after watching videotaped scenes of both natural and urban settings for 140 Chinese university students. The stress-inducing factor consisted of the completion of an oral English exam. Results demonstrated that during the stress recovery phase, the students watching urban park scenes reported better stress reduction. Students also perceived urban park scenes as highly restorative compared to the urban scenes. (Wang, Rodiek, Wu, Chen & Li 2016, 119.) On the other hand, visually intrusive elements, which are typically human constructions that impact the natural landscape, can have negative impact on the viewer as proved in a study conducted on residents of areas surrounded by motorways in Glasgow, in which researchers found evidence that the mental wellbeing of participants was lower. (Foley & al. 2017, 11).

2.2 Psychological benefits of exposure to nature

So far, the chapter has briefly described the physiological effects on the human body when individuals spend time in a natural environment. But what happens at a psychological level when individuals observe nature? The main theory explored further in this chapter is the Attention Restoration Theory of Kaplan, which asserts that nature is a restorative environment that induce relaxation, psychological distance from the everyday rustle and stimulates enchantment. During the process of viewing nature, the individual's attention is involuntarily captured, giving the mind the possibility to restore.

The experience of enchantment or awe (Lumoutumisen kokemus in Finnish), is defined by environmental psychologists as the state in which a person's full attention is captured by the elements and detail of nature. This process is fascinating and gratifying and gives a feeling of being away from the rest of the world and from stressors. (Arvonen & Aaltonen 2014, 21.) Researchers found that the experience of awe changes the perception of time. In the study, people perceived they had more time, and that lifted their feeling of wellbeing, in opposition to the sensation of hurry, which is typical of the modern lifestyle (Rudd, Vohs & Aaker 2012, 1135). Moreover, the experience of enchantment by exposure to nature is a process that does not require particular effort but happens unconsciously (Kallunki 2017).

The subchapters below explore more in detail what are the cognitive effects when viewing nature and explain more in detail the ART theory. The author believes that those concepts are important to understand how the product can be developed and what benefits it can bring to participants.

2.2.1 Attention Restoration Theory (ART)

Spending time in nature allows individuals to restore the mind and to clear their thoughts. Perhaps, one has experienced more than once the sensation of being amazed in front of beautiful natural scenery, and the feeling of being replenished. The natural environment is considered by environmental psychologists a restorative environment because of its capacity to restore our attention and to calm down. In the late 1980s and early 1990s Stephen and Rachel Kaplan developed the Attention Restoration Theory (ART). At that time there was already the need for research that could mitigate the unhealthy effects of the current new lifestyle, characterized by the rapid development of technology and the high amount of time spent indoor. (Ackerman 2020.) The theory assert that an environment can be defined as a restorative when it meets the four criteria: fascination,

being away, extent, and compatibility. Numerous empirical studies conducted over the past decades and based on the ART theory, found evidence that nature meets all the four criteria and therefore, it can be defined as a restorative environment.

Fascination in nature represents the effect, on a cognitive level, of the visualization of typical natural elements, like clouds, rivers, sunsets, or snow. Posing attention to those elements, in fact, does not require no particular effort, allowing the mind to go. The ART call this phenomenon soft fascination. On a visual level this could be related to the fact that natural landscapes have non-straight but softer delimitations, and less colour saturation (Schertz & Berman 2019, 499). Especially, colour shades characteristic of nature, like blue and green, are low arousal and thus calming (Wilms & Oberfeld 2018, 902). A study even suggested that visual features of an environment can influence the content of people's thoughts. During the research, participants who were exposed to green areas exercised positive thinking about their relationships and surroundings. (Schertz, Sachdeva, Kardan, Kotabe, Wolf & Berman 2018, 89.) Thus, the findings showed that natural environments have visual features which enhance positive reflection and boost mood.

As further illustrated in the following subchapter, fascination is an important condition in the process of restoring one's attention. Nevertheless, as mentioned, an environment cannot be considered restorative because of fascination alone but, according to ART, fascination needs to be supported by the three additional components of being away, having an extent and being compatible.

The feeling of being away frees individuals from mental activity that requires prolonged direct attention (Kaplan, 1995, 173), for instance when students are focusing for an extent period on a paper. Being physically far or in a new place does not represent an essential condition since the shift happens more at a cognitive level (Kaplan 1995, 173). Nature is considered full of elements, like forests or lakes, that give the feeling of being far from the usual environment.

The extent of an environment refers to the quantity of elements present in it, which provide enough to see and experience (Kaplan 1995, 173). The natural environment provides enough stimuli to engage a person and give a sense of being immersed. Moreover, the environment should give a sense of comfort and security and not contain unusual or unexpected features but, rather, it should have similar characteristics to other places previously visited. (Ackerman 2020.)

The criterion of compatibility assumes that one's reasons to visit a restorative environment is linked to the possible positive outcomes of the experience. Thus, the natural environment has restorative effects on individuals as long as it supports their current purpose, allowing them to carry the activity smoothly and without struggle. (Kaplan 1995, 173.) As mentioned in the introduction, humans have evolved more in nature than in urban environments. Therefore, there is a sense of familiarity when visiting a natural environment. People express their compatibility with the natural environments conducting a variety of activities, which according to Kaplan (1995, 174) they follow certain patterns such us the predator role (hunting or fishing), the locomotive role (hiking or kayaking) or the survival role (camping and fire building).

The concept of compatibility is particularly relevant for the product, to justify the combination of nature's visit with the activity of mindfulness photography. The fact that having a purpose when being in nature seems to increase the overall sensation of wellbeing supports the author's hypothesis that the psychological benefits of a mindfulness photography practice will combine with those physiological benefits of an exposure to the forest environment. In a study conducted in Finland, a team expert on the topic tried to measure the connection between the motives that push people to visit nature and the well-being benefits resulting from the visit. Particularly, the wish to reduce stress resulted strongly connected to a higher perceived restorative experience and a positive mental state after visiting nature, suggesting that individuals were voluntarily making effort to reduce stress and thus, that the motivation led to actual stronger positive outcomes. (Pasanen, Neuvonen & Korpela 2018, 937.)

The next subchapter defines Direct Attention Fatigue and the reasons why it is important for humans to restore their direct attention. The subchapter also reviews empirical studies that showed how fascination, enhanced by the view of natural elements, can help the process of restoration.

2.2.2 Nature as a remedy to Directed Attention Fatigue

Directed Attention Fatigue is an unpleasant state of mind that can be experienced frequently in everyday modern life. Perhaps, every time one has worked on a project intensely and for an extended period of time. Directed Attention Fatigue is caused by the abundance of external stimuli that constantly call for our attention. According to psychologists, human's attention modes have evolved in time thus, Directed Attention Fatigue could be considered as a related consequence of modern life, in which humans must perform intense focusing on the important daily tasks while resisting distraction from

what is considered interesting. (Kaplan 1995,170.) When humans where living in the natural environment, being vigilant and alert to the surroundings was far more useful for survival than focusing one's attention on a single matter (Kaplan 1995, 170). The fact that humans have lived most of the time in nature explains how, although the fast urbanization process, most people still feel more comfortable in a natural environment and react worse to urban stimuli.

From a physiological perspective, mental fatigue is caused when stimuli typical of an urban setting like, technological devices or hammering city sounds, capture all the attention and overload the prefrontal cortex of the brain, which is important to perform executive functions (Atchley, Strayer & Atchley 2012,1). Although sleep might seem the obvious solution to restore directed attention, alone it cannot be considered sufficient. What is needed is an alternative form of attention which requires no effort and therefore allows directed attention to rest. This alternative status requires, by definition, involuntary, or effortless attention (Kaplan 1995, 172.) and it can be facilitated when individuals are exposed to a natural environment.

As already mentioned, nature is considered by environmental psychologists a restorative environment or, an environment that allows individuals to feel refreshed, to lower their level of stress and sense of fatigue, and to boost positive emotions (Korpela, De Bloom, Kinnunen 2015, 3). The primary requisite of a restorative environment is to induce a sense of fascination. When immersed in nature, individuals are surrounded by engaging elements that capture their attention in a moderate way, limiting directed attention activity and releasing the stress on direct attention mode (Berman, Jonides & Kaplan 2008, 1211). This process is defined by the ART as soft fascination, which needs to be distinguished from "hard" fascination (Basu, Duvall & Kaplan 2019, 1056). For instance, the view of a sunset, the wind blowing through the leaves or ripples on the surface of a lake are typical natural stimuli that enable soft fascination. They capture the attention loosely, leaving space for the observation of persistent and unresolved thoughts which otherwise would consume people's attention capacity. (Basu, Duvall & Kaplan 2019, 1057.) On the contrary, activities such as using a smartphone or watching television are classified as "hard" fascination. In fact, although these types of activities can be perceived by a person as relaxing and engaging, they leave little or no room in the mind, for processing thoughts. (Basu, Duvall & Kaplan 2019, 1061.)

A group of psychologists from the Universities of Utah and Kansas conducted a research to test the hypothesis that complex cognition, particularly mental activities such as creative thinking and problem solving, are positively impacted by prolonged exposure in

nature and by the simultaneous release from technological devices. A total of 56 participants were presented with several tests, to measure their creative thinking and insight problem solving, during a 4/6-day backpacking trip in nature. The results demonstrated that the subjects showed a 50% increase in performance after four days of exposure to nature (Atchley, Strayer & Atchley 2012, 1-2.)

Directed attention is indeed a key ingredient in human effectiveness and its weariness can lead to human error and to cause a persistent feeling of irritability (Kaplan 1995, 172). As consequences of prolonged Directed Attention Fatigue a person can experience inhibition of problem-solving ability as well as difficulty in planning and carrying out challenging or undesirable but important tasks. Moreover, a mental fatigue state prevents individuals from being able to step back from a situation in which the right way to response is not immediately clear and thus, it requires the person to pause and understand what is going on, before acting. (Kaplan 1995, 171.) This cognitive mechanism is connected to the very core of the mindfulness concept and thus, it will be discussed later in chapter three. In fact, mindfulness tries to teach, among other things, how to train the mind to react consciously to common stressful situations, such as arguments in relationships, instead of rushing to conclusions.

To wrap the chapter up, the modern lifestyle characterized by urban settings, multiple demanding tasks, and a faster pace is not very compatible with the human brain and thus, it leads to multiple negative outcomes both physicals and psychological. Fortunately, so far, the paper explored how a less stimulating and more familiar nature environment allows for sensory and brain recovery among other things. Cited research showed consistent proof of physiological effects such us relaxation (decrease of pulse rate and blood pressure) as well as restoration of directed attention. On a psychological level, being immersed in a natural environment enhances the feeling of being detached from everyday urban life and thus, far from worries, demands and urgency.

Another valid help to deal with a stressful society, without getting caught in unpleasant physical and mental conditions, comes from the practice of mindfulness. This method, which is now very popular in the western world, has very ancient roots and it has been practiced for centuries. Since the topic is wide, the author felt the need to focus on the elements that inspired her project and that will be useful for developing the product. The next chapter gives a brief introduction to mindfulness practice and the benefits that can bring to those who regularly apply this technique in their own life. The chapter then explores how mindfulness is connected to ART and shows the theories researchers have recently brought up in the field of environmental psychology. Finally, the chapter illustrates

the existing mindfulness techniques applied to nature, particularly in forests. Those techniques inspired the development of the experience of mindfulness photography and thus, they are worth mentioning.

3 Mindfulness applied in nature to achieve well-being

Mindfulness is a very ancient practice that was already in use in eastern philosophies such as Buddhism. Nevertheless, it has become popular in western society only in recent times. (Tobler & Herrmann 2013, 2). Siddhartha Gautama, the philosopher, and spiritual leader known as the Buddha, developed the mental and spiritual discipline of mindfulness meditation already 2500 years ago (Smiley & Harp 2020, 13).

Mindfulness can be explained as the practice of paying attention, on purpose to the present moment, without being judgmental. The process of adding clarity and vividness to the present moment is in contrast with a state of habitual or automatic functioning (Brown & Ryan 2003, 823). Research found that about 95% of what individuals do in everyday life occur in "automatic pilot" mode, meaning that most of the tasks that humans learn become automatic. This behaviour ends up being extremely useful when executing regular tasks such as driving a car or brushing teeth every day. On the other hand, individuals develop automatic behaviours that are less positive or even unhealthy. (Tobler & Herrmann 2013, 62.) Mindfulness can help to disengage those unhealthy behaviour patterns, bringing back awareness about the external situations people normally experience and the consequent internal emotional reactions, without getting attached. With regular practice, individuals become able to step back from demanding situations, for instance in relationships, and to release those unpleasant emotions. (Tobler & Herrmann 2013, 63.)

Learning mindfulness is a life changing experience and the author is a witness to this. Nevertheless, the practice of mindfulness requires a long time and quite a lot of effort before it can form an integral part of one's life and routine. This is in contrast with the principles of ART according to which, restorative experience in nature does not require training, but it happens almost involuntarily, thanks to the body's response to the stimuli produced by elements in nature. However, recently, researchers have found that mindfulness and restorative experience in nature are complementary. In other words, although the two processes differ, both facilitate and strengthen individuals' ability to self-regulate and to direct their attention, in order to better manage the demands of daily life.

The chapter will therefore explore this theory as well as a new type of technique that researchers have developed, called restoration skills training ReSTS, which utilizes the natural environment to apply mindfulness techniques. In the chapter, the author also refers to the already popular technique of Shinrin-yoku, better known as Forest Bathing, which consists of mindfully walking experience in forests, using all senses.

3.1 A brief overview of the mindfulness concept

Over the past decades, there has been a rapid increase in the phenomena which sees the ancient mindfulness practice applied to the western countries in prominent fields such as medicine, psychology, education, and business leadership. This process involved (and will continue to) some challenges like, for instance, the risk of misconception of a traditional art that has been handed down in Asian monasteries for centuries as well as, on the other hand, new opportunities including innovative ways for implementing and promoting the method and its benefits. (Williams & Kabat-Zinn 2011,16.)

Mindfulness is built around the concept of self-awareness, or the conscious knowledge of one's own personality, thoughts, and feelings. It is a skill that, if acquired, can apport incredible benefits to one's life but, surprisingly, it has never been promoted widely, until recently. Indeed, nowadays there is a great deal of effort in training and educating people, to develop skills and knowledge that can be useful for the development of modern society. On the contrary, almost nothing is done to teach other kinds of skills, that can help people to cultivate a more internal wellbeing and to pursue a balanced life. (Williams & Kabat-Zinn 2011,15.)

Mindfulness essentially involves paying attention selectively to the present moment, without being judgmental. This type of selective attention cultivates awareness of one's feelings and thoughts, clarity, and acceptance of the present moment and of one's own current life situation. (Kabat-Zinn 2004, 14.) To make the concept clear it is perhaps convenient to investigate three important mental attitudes of the mindful technique: attention to the present moment; not being judgmental; acceptancy.

Attention to the present moment. Paying attention is capturing moments and being aware of what we are thinking and doing. However, it is quite common when starting to focus, to quickly go away with the mind and fall back into a state of unawareness. (Kabat-Zinn 2004, 20.) To make a practical example, when trying to meditate for a moment, one will realize immediately how the mind goes to the past, to the future and to the respective worries, fears, or insecurity, rather than being focused on things that are happening now, both in the external surrounding and internally. Because of this habit, people, find themselves caught in unconscious and excessive thinking or in behaviours' patterns which are often driven by insecurities and fears and which, if not faced, will impact negatively their daily life (Kabat-Zinn 2004, 14). Rumination for instance, is a thinking style which involves compulsive and intrusive thoughts, often related to past events with a negative

projection towards the future (Golding, Gatersleben & Cropley 2018, 1). Identification with these thoughts creates a screen of labels, prejudices that block relationships among humans and prevent them from fully living their life (Tolle 2004, 12). So, practicing mindfulness helps reduce the habit of ruminating, to detach from automatic behaviours and to get back to a more conscious way of living.

Not being judgmental. Mindfulness practice involves having a non-judgemental attitude towards whatever comes through our mind but instead, simply recognizing and witnessing internal thoughts or emotions. People often compare themselves to others or create expectations. The mind labels things, people, and situations as good when they please or gratify. Others are labelled as bad because they annoy or hurt. Finally, those situations that do not have so much relevance for the person are categorized as neutral. The habit of judging experience leads to automatic response of which individuals are not aware. (Kabat-Zinn 2005, 33.) It is if the mind puts on glasses with special distorted or filtered lenses and then observes the reality through those. (Kabat-Zinn 2004, 37.) Practicing mindfulness allows people to identify the judging or labelling of the mind and to come back to the present as it is.

Acceptancy. Acceptance of the present moment means stopping fighting a reality that is not wanted or that the mind labels as not good. It also means to be aware that nothing lasts forever, and things inevitably change. Especially, the mind labels certain temporary life conditions, like one's job position, physical appearance, a relationship, or health status, as good or bad for the person and it attaches to them. But identification with life conditions generates emotional pain as soon as one of those ceases or mutates, because the mind tries to fight and resist the change. (Tolle 2004, 153.) Often acceptance is reached only after having processed intense emotions like denial and anger. These stages are naturally part of the healing process. (Kabat-Zinn 2005, 38.) Mindfulness helps recognize those mental mechanisms and brings back compassion and kindness to what the present situation involves. Compassion does not mean surrendering to situations and has nothing to do with the sense of defeat or, taking passively everything that comes. Being aware of things as they are gives people a clear picture of the situation and of the right way to act, in order to make positive adjustments. (Kabat-Zinn 2005, 39.)

Mindfulness has attracted the attention of researchers and many scientific studies have been conducted to understand the positive reactions of the body, in people who had practiced mindfulness with regularity. For instance, these people measured low levels of cortisol, the hormone that increases when confronted with a stressful situation (Tobler & Herrmann 2013, 18). Blood pressure was lower, which decreases the risk of hypertension

in individuals. Even the immune system seems to benefit from practicing mindfulness, as scientists have found that participants in studies had less episodes of flu. (Tobler & Herrmann 2013, 20.)

However, practicing mindfulness requires self-discipline and will-power. The automatic and unconscious behaviours' mechanisms the mind builds are powerful and difficult to root out. (Kabat-Zinn 2004,15.) Moreover, beginners might experience irritations, doubts, or distractions while practicing, because of the process of facing their own thoughts and emotions. Nevertheless, over the past years, researchers have started investigating the possibility that applying mindfulness in a natural context facilitates beginners to achieve restoration, reducing the amount of effort of directed attention.

Before getting to the topic, in chapter two, the author cited the ART theory which says that the natural environment offers a condition of soft fascination in which the viewer's attention is captured, enabling distraction from compulsive thoughts. The author also referred to empirical studies that proved how the view of natural environments generates fascination and a sense of being away, compared to the view of urban scenes (Golding, Gatersleben & Cropley 2018, 14).

After an intense investigation into these topics, the author found a clear correlation between the ART and the teachings of the mindfulness method. This led to an input for her thesis and for the design of the product. Nevertheless, the author felt it necessary to further investigate this connection. The following subchapter is a review of recent literature addressing the complementarity between mindfulness and ART and the evidence that the two support each other in the process of restoring individuals' minds.

3.2 Common path between mindfulness and ART

So far, the paper has summarized the two wide topics of mindfulness and Attention Restoration Theory ART. Although the methods and concepts differ, the main objective of both is to help individuals to achieve mental restoration and to avoid unnecessary use of directed attention.

In mindfulness meditation there are different techniques. For instance, in one, people try to focus on the present moment and thus to move their attention away from thoughts that normally occupy the mind. In another, active control of the mental noise is discouraged by training the mind to gently observe thoughts rather than identify or being involved with them. However, all mindfulness techniques have the purpose of strengthening the

attentional control capability of the mind and of taking distance from the internal dialogue. In fact, from the point of view of ART, the mechanism that involves rumination or intense internal dialogue of the mind, corresponds to the process of excessive use of directed attention, which leads to Directed Attention Fatigue. (Kaplan 2001, 484.)

Nonetheless, the mindfulness technique and the restorative experience in nature proposed by ART differ in their procedures. According to ART, when individuals are exposed to nature, the effects of the restorative experience on mental activity happen without the participant's awareness. The pleasant experience of being immersed in a natural environment gives a sense of psychological distance (being away) from everyday worries. Furthermore, the elements in nature capture attention in an effortless way, called soft fascination. (Lymeus, Lundgren & Hartig 2017, 540.)

On the other hand, in mindfulness meditation, the process of directing on purpose the attention towards certain stimuli or tasks, requires active participation of the individual in need to recover, through training and developing skills (Kaplan 2001, 485). During the practice sessions individuals typically focus their attention on an object. The most common is one's own breath but it can be anything from external sounds to a mantra, (a word or a sound repeated). Those objects function as an anchor that people can use to calmly return to the present moment, every time they realize the mind has been wandering away. (Kabat-Zinn 2005, 68.) The concept of using a mantra to practice awareness of the present moment will return later in the paper, to justify the use of the photography technique to practice mindfulness and thus, to explain the very core of the product developed by the author.

To conclude, mindfulness and the restorative experience in nature proposed by ART have the common goal of reaching mental restoration, as summed in figure 2. Based on this common ground, researchers have explored the possibility that the effortless fascinating effects of the natural environment on individuals' attention and the sensation of being away can offset the effort involved in putting into practice the mindfulness meditation training. In return, the active role, typical of mindful practice, can create a positive engagement in individuals and bring further beneficial effects to the restorative experience in nature. (Lymeus, Lundgren & Hartig 2017, 541.) The results of those empirical studies merged in a new method which sees the mindful method applied to the natural environment and which is also the essence of the mindfulness photography experience designed by the author.

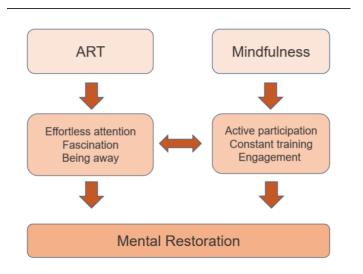


Figure 2: Complementarity of ART and mindfulness (originated by the author)

The following subchapter further examinates the ReSTS technique, as well as the popular Shinrin-yoku, a Japanese word translated in English language as "forest bathing". The Shinrin-Yoku method uses forest stimuli to favour relaxation and to promote preventive healthcare (Song, Ikei & Miyazaki 2016, 3). It started in the 1980s as a practice to fight the negative effects on the wellbeing of residents in urbanized areas of Japan. It mainly consists of an all-sensory experience of being immersed in a forest and of taking a pause from the busy routine, to appreciate the beauty of the natural surroundings. (Japan National Tourism Organization 2021.)

3.3 Mindfulness applied in nature: the techniques of ReSTS and Shinrin-yoku

Based on the theory of Kaplan (2001) that mindfulness and ART, although with different approaches, complement each other in their common goal of restoring the mind, a group of researchers conducted an empirical study to determine if combining a traditional mindfulness training with the view of natural scenes could counterbalance the initial effort that beginners in this type of training are subject to (Lymeus, Lundgren & Hartig 2017, 542). Two groups of students with no previous mindfulness skills had been asked to attend a 15-minute mindfulness meditation practice, with and without viewing images of natural scenes, over a period of eight weeks. Participants who had viewed natural scenery scored better improvements in all tests, supporting the hypothesis that the soft fascinating and restorative features of nature can enhance a meditative state and that, if combined with a traditional mindfulness training, they can help holding attention to the present moment with less effort than just in normal practice. (Lymeus, Lundgren & Hartig 2017, 552.)

The above descripted study pushed the team of researchers to develop a 5-weeks course called restoration skills training (ReST), which emphasized the experience related to a contact with nature. The team then compared, in several studies, the ReST course to a traditional mindfulness training (Lymeus, Lindberg & Hartig 2018; Lymeus et al. 2020). Although both courses led to improvement in attention capabilities over time, participants who attended the ReST showed improvements in selective attention as well as a greater stress reduction, in the short term. (Lymeus, Lindberg & Hartig 2018, 51.) These studies support the theory that mindfulness training combined with exposure to natural stimuli improves psychological functioning of individuals unconsciously (soft fascination; being away), and therefore, it does not put selected attention under strain, as opposite of a traditional mindfulness practice (Lymeus, Lindberg & Hartig 2020, 14). To sum up, the innovative method of acquiring mindful skills in a natural environment (ReST) has the potential to offer valid help for beginners, particularly with stress or concentration problems, to successfully complete the training that, otherwise would require intense effort in the initial phase of acquiring the skills (Lymeus, Lindberg & Hartig 2018, 55).

Meanwhile, in Japan, the benefits of the forest environment on human's wellbeing have been the topic of an impressive number of studies conducted over the past decades. The word Shinrin-yoku was coined in 1982 by the Japanese government to define a method that promoted well-being and attracted more people to the forest area, which covers 68 percent of the country. Translated in English language, this term means "forest bathing" and involves letting nature into the body through all five senses. (Williams 2017,19.) In fact, the three Japanese characters that compose the word Shinrin-yoku represent respectively a forest, the element of wood and the verb bath (Olson, Hansen & Vermeesch 2020, 4). The practice of Shinrin-yoku captured the attention of Japanese researchers that engaged in a series of studies to understand the physiological and psychological positive effects of being exposed to forests.

For instance, in a field experiment conducted in 24 forests of Japan, participants measured physiological improvements that indicated relaxation and stress reduction, such as decrease in blood pressure, pulse rate and cortisol levels as well as a decrease of the activity of the sympathetic nervous system and increase of the parasympathetic activity. (Park, Tsunetsugu, Kasetani, Kagawa & Miyazaki 2010, 23). The sympathetic nervous system is activated in stressful situations and it is responsible for the "fight or flight" response when a danger is perceived. On the contrary, the parasympathetic nervous system brings the body back to a state of calm and relaxation. Moreover, researchers measured the psychological effects of the experience, using the Profile of Mood States test (POMS). Results showed that forest bathing can reduce several negative

psychological conditions such as anger, depression, or tension (Park, Tsunetsugu, Kasetani, Kagawa & Miyazaki 2010, 24.) Another study, conducted in Japan, explored the possible psychological effects of 15 minutes walking and viewing forests and urban areas. The participants assigned to the forest areas scored significant lower levels of perceived tension, anxiety, and fatigue, after the activity, compared to participants assigned to the urban area. (Takayama & al. 2014, 7219.)

Japanese researchers, with their findings, further supported the ART theory, which considers nature a typical restorative environment (Park, Tsunetsugu, Kasetani, Kagawa & Miyazaki 2010, 24). Especially, the physical anthropologist Miyazaki Y. is an advocate of restoration theories such as Stress Reduction (Ulrich 1991) and Attention Restoration (Kaplan 1995) and he conducted studies to support the belief that humans feel more comfortable in nature, even on unconscious level, because it is the environment where they have evolved (Williams 2017, 21).

Since its implementation, the method of Shinrin-yoku has travelled fast to western countries and has recently become a well-known practice to promote health, to boost immune functions and to relieve stress (Song, Ikei & Miyazaki 2016, 2). Furthermore, in 2007 was established the Japanese Society of Forest Medicine, to support the increasing number of studies regarding the health benefits of the forest environment on humans (Park, Tsunetsugu, Kasetani, Kagawa & Miyazaki 2010, 18). The research institute also took part in a bigger project, a task force launched in 2007 by the International Union of Forest Research Organizations, of which Finland was a joint partner (Metla 2008).

Practically, the method of Shinrin-yoku, (Metsämieli in Finland and Forest Bathing for the rest of the world), involves various exercises that require slow movements and awareness of one's own surrounding and thoughts. For instance, the 15 minutes walking meditation, in which individuals pay attention to any movements in the forest, or the sitting spot exercise, in which the person tries to bring stillness in body and mind and focuses on observing small details around. Shinrin-yoku is better done in a familiar and easily accessible forest environment, where the person can visit again any time. It is a method that requires all senses to be tuned in with the place and with its elements. (Clifford 2018.)

To conclude, practicing mindfulness has been proved to bring physical and emotional wellbeing (Tobler & Herrmann 2013, 14). Jon Kabat-Zinn, who is considered the godfather of modern mindfulness (Booth 2017), developed in 1979 the now most famous Mindfulness-based Stress Reduction MBSR programme. Since then, MBSR has been

subject of countless studies and utilized all over the world, especially to help patients in hospitals, to relief physical pain (Tobler & Herrmann 2013, 178). A review paper of several studies assessed that mindfulness-based interventions MBIs are beneficial to advanced cancer population as they improve the quality of life, increase acceptance of the current situation and reduce depression and anxiety (Zimmermann, Burrell & Jordan 2018, 73). Furthermore, a pilot study of mindfulness based cognitive therapy, conducted among 24 health care workers, measured significant improvements in perceived stress, anxiety, empathy and resilience (Hente & al. 2020,90).

More relevant for the thesis is the fact that developing mindfulness skills and awareness of the present moment can help individuals cope with daily life stressors (Donald, Atkins, Parker, Christie & Ryan 2016, 34) which, if accumulated can undermine the wellbeing and lead to more serious symptoms like, anxiety and depression (Tobler & Herrmann 2013, 170). Mindfulness practice also found its utility during the COVID-19 time, in which people are trying to cope with uncertainty for their work and their economic situation as well as with emotional stressors like loneliness, anxiety and depression. For instance, a study conducted among health care students showed an increase of focus and stress reduction after completing a 13-week online mindfulness course (Luberto, Goodman, Halvorson, Wang & Haramati 2020, 4).

Moreover, the chapter reviewed how practicing mindfulness in a natural environment not only leads to the same benefits of traditional mindfulness courses but also reduces the mental effort and the strain of direct attention, which are typically experienced among beginner practitioners. Therefore, the author hopes that her product, which combines fascination in nature with the method of mindfulness photography, will become a popular method to facilitate relaxing conditions and to help people to better deal with the stressful daily modern life.

In the next chapter will be discussed the last key topic of the paper. The concept of wellbeing, more specifically, applied to the tourism industry. The search for well-being or for a more balanced and healthy way to live the modern lifestyle has been a major travel trend for a while now, and it is still expected to grow. Finland aims to become a leading destination in well-being tourism in the next years. Nordic countries, including Finland, have a well-defined brand image that attracts foreigners in search of a model to follow, to pursue a healthier and more sustainable life, in which nature plays a significant role.

4 The wellbeing travel trend and Finland as well-being tourism destination

The Oxford English dictionary defines well-being as "the state of being comfortable, healthy, or happy" (Lexico 2021). Nevertheless, well-being is a much broader concept that governments, institutions, and researchers all over the world have been trying to delimit and to measure (Linton, Dieppe & Medina Lara 2016, 1). Well-being is perceived as a comprehensive approach to individuals' life that looks beyond physical health condition and that is subjectively achieved and, so it can vary from person to person. WHO defines quality of life as "the individuals' perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns" (WHO 1997,1). The definition takes into consideration many aspects of a person's life such us being physically and psychologically healthy, relationships with others, personal beliefs, financial resources, freedom, work opportunities and political, social, and environmental conditions (WHO 1997,4).

4.1 Defining the well-being travel trend

In the tourism industry, wellness and well-being have been a major topic in the past few decades, although the concept is continuously evolving, following the course of global society and of the economy, as well as of the consumers' values and lifestyle. Nowadays, people live longer, healthier and they are more active. The demanding, modern urban context pushes them to travel in search of a better quality of life or self-fulfilment experiences. (Hjalager et al. 2011,9.) A typical wellness travel is designed for improving the physical and mental health of the person or for achieving an overall sense of wellbeing. Particularly, the trend of using meditation or mindfulness to recover from stress, has been already popular, since people started realizing that a balanced and healthy life concerns both body and mind. (SiteMinder, 2020.)

Finland defines well-being tourism as an area of travelling that offers visitors a good feeling that lasts even after the conclusion of the trip. More specifically, well-being tourism (Hyvinvointimatkailu) does not cure deseases or improve fitness but promotes a healthy lifestyle and invigorates. Furthermore, well-being tourism provides a customized holistic approach to life that benefits travelers physically and mentally. (Visit Finland 2020, 3.) The Finnish well-being destination should follow superior quality criteria such us cleanliness of the premises, quality of materials, knowledgeable and professional customer service, respect for the environment, good assesment of risks and safety plan, cooperation with other local partners, accessibility, authenticity in respect to local traditions and

attractiveness (Visit Finland 2020, 4). The idea of the well-being travel recalls concepts like being away from the usual environment, slow pace, relax and detox and recharging batteries (Björk, Tuohino & Konu 2011, 3). Typical product of the finnish well-being experience are the authentic sauna (saunaelämys), the cottage wellness retreat (Hyvinvointimökki) and outdoor sports activities such us swimming in winter (Avanto) and the Finnish nordic walking.

4.2 Well-being travel and nature in nordics

Abundant research around the topic of well-being has focused on the mental and physical benefits of nature tourism (Smith & Diekmann 2017,8). In Finland, for instance, there has been attempts to develop concepts like "lake wellness" (Konu, Tuohino & Komppula 2010) and forest well-being tourism (Konu 2015). Furthermore, wilderness and open spaces are more than before considerate luxury. After the COVID19 travellers will continue seeking outdoor experiences in nature where they can feel distant from the crowded and stressful cities, in which they need to respect the government's restrictions. (Qubein 2021.)

However, nature tourism as a source of well-being is a concept already familiar to the Nordic countries. According to professor Liisa Tyrväinen, nature-based tourism is estimated to account for 25% of the Finnish travel market. Moreover, Tyrväinen, who is expert in nature-based tourism and recreation, sees forest tourism as an alternative and more sustainable source of income, to forestry. (Sihvonen 2018.) New products that promote mutual benefit human-nature relationships are spreading among countries. For instance, in Austria a local community decided to use the main forest of the area, for recreational and tourism purposes. They conducted a study in which participants took part in a forest bathing tour. Results showed that visitors experienced beneficial physical and mental effects, and thus, sustained the idea of using forests to promote the well-being of locals and to attract tourism. (Cervinka, Schwab & Haluza 2020,1.) In Finland, Metsähallitus conducted a survey in national parks spread around the country. Park visits were found to improve mood, help with stress recovery, and improve psychological wellbeing. The beneficial effects were also measured to last longer in individuals who stayed more than a day. (Kaikkonen, Virkkunen, Kajala, Erkkonen, Aarnio & Korpelainen 2014, 48.)

Due to their geographic location, all the Nordic countries in general market their destination, emphasizing the purity of nature, authentic connection with wildlife and sustainability and environmentally high quality (Hjalager et al. 2011, 25). For instance, Visit Finland advertises the country as a slow travel destination for finding peace, calm

and well-being, imitating the normal way of living of Finnish people (Visit Finland 2021). A qualitative research study conducted in Finland showed how the Nordic human-nature lifestyle recalls terms like simple, slow life, relaxation, tranquillity, and stress relief. The interviewed also described Nordic well-being as holistic and thus, considering the mind, body, and soul. (Konu, Tuohino & Björk 2011, 32.) Since, without any doubt, these characteristics represent the unique selling point of the Nordic countries as travel destinations, the brand of Nordic wellbeing, needs to be differentiated from other destinations (Hjalager et al. 2011, 10) through strategic marketing and with products and services that reflect and enhance the concept. Nevertheless, selling well-being experiences should be personalized as much as possible since the feeling of well-being is something unique and personal and thus, what represents well-being for a person does not necessarily suit others (Kuonu, Tuohino & Björk 2011, 33).

The following subchapter is an analysis, based on literature research, about the peculiarities of Finnish nature that makes Finland a potential leading destination for well-being tourism in the Nordics. The healing elements of the natural environment, which were reviewed in chapter two, are applied to Finland in the following subchapter. For instance, the interactions between natural compounds released by trees (phytoncides) that positively boost immune defences, the quality of air and the absence of noise pollution. Moreover, the author researches the deep relationship that Finnish people have with nature. Finally, she tries to justify the need for her product in the Finnish travel market, as an innovative way to enhance the concept of mindful and slow travel and to encourage the pursue of well-being, while promoting a more sustainable lifestyle in contact with nature.

4.3 Finland as a well-being leading tourism destination

Over recent years, tourism has become a relevant source of income for Finland, with EUR 15 billion in revenue generated only in 2017. The mission of Finland for the following years is to become the most sustainable growing tourism destination in the Nordic countries. (TEM 2021.) Especially the focus will be on nature and the promotion of wellbeing (TEM 2021, 42). This choice is led primarily by the relevance of social trends, such as searching for personal wellbeing in nature, and by the growing concern about climate change, which phenomenon is especially perceived in northern countries, including Finland.

To reach this goal and to facilitate the process, The Ministry of Economic Affairs and Employment recently published The Finland's Tourism Strategy 2019-2028 report, which

is meant to serve as a guideline for all the different operators involved in the future development of tourism in Finland. Based on the report, one of the challenges is to convert Finland to an all-year destination which offers a range of products and services that differentiate from the already popular winter activities in Lapland or than the beauty of the southern coastal area during summer. With the goal of diversifying the supply of products and of giving travelers the possibility to discover different areas of Finland in different seasons, the report proposes that tourism products are marketed under specific interconnected themes. Wellness tourism, particularly related to nature, is among those. (TEM 2021, 40-42.)

A first attempt to market Finland as a wellbeing destination was already placed during the years 2015-2018 with the project Fin Relax which primary goal was to promote a slower type of tourism, which treasures elements like silence and peacefulness and thus, is beneficial for reducing stress caused by our modern lifestyle and routine. (TEM 2021.) Later in 2019, Visit Finland, with the support of Hintsa Performance, launched the campaign Rent a Finn. Eight Finnish citizens were chosen from hundreds of applications to host foreigner travelers and show them the Finnish way of relaxing in nature. (Business Finland 2019.) The experience was successful and repeated as virtual in summer 2020, due to coronavirus (Visit Finland 2020). The publication Slow Finland in 2017 was also part of the Fin Relax program, financed by the Finnish Ministry of Employment and Economy, in which the main topic is the connection between Finnish pure nature and the positive effects on wellbeing (Slow Finland 2017, 2.)

Although, the concept of green care only arrived in Finland in 2008 (Tourula & Rautio 2014,12) one could say that Finnish people were used to concepts like slow living lifestyle or mindfulness, way before they have become huge global megatrends (Visit Finland 2021). The Finnish way of life is, in fact, advertised as closely related to pure nature, unhurried and respectful of silence (Slow Finland 2017, 4). Finns run to nature at any time of the year, to seek peace and relaxation. Although more than 70% of the Finnish population currently lives in urban areas of the country (Syke 2020), the interest in spending time in nature is a common habit among citizens. In fact, 95% of Finns visit natural environments on average 2-3 times a week (Sievänen & Neuvonen 2010,125). According to a study, among the favorite hobbies practiced in nature are walking (70%), berry-picking (58%), swimming (68%), fishing (44%) and cross-country skiing (42%) (Sievänen & Neuvonen 2010,128). One of the main reasons for outdoor recreational activities' popularity is the desire to feel close to nature and to relax (Luke 2016). Although most of the forest areas in the country are private, Finns' access to plenty of green spaces

is guaranteed by *jokamiehenoikeus* or everyman's right (Pasanen, Neuvonen & Korpela 2018, 922).

The close relationship Finns have with nature might be because Finland urbanized late compared to other western countries (Williams 2017,134). Therefore, for a long-time, forests have played a key role in Finnish traditions and economy providing jobs, home, food, and leisure activities (Arvonen & Aaltonen 2014,11). Even today, forestry is one of the main economic sources for Finland. About 350.000 families own at least two hectares of forest land (Luke 2016) and there are around 2 million of kesämökki for a population of only 5 million (Williams 2017,135).

Even Finnish folklore refers often to the elements of nature. For instance, animals like the brown bear or the whooper swan appear in the epic poem of *Kalevala* (This is Finland 2021). *Haltia* is the spirit who lives in every forest, river, or lake and the expression "*olla haltioissaan*" means being enchanted by nature or, is used to describe a person who reaches a flow state in which he/she is totally immersed and focused on a certain task (Tarkiainen 2019, 35). The term *metsänpeitto*, which means "covered by the forest," indicates in the Finnish folklore a state of strangeness and alienation in which people would be possessed by the forest and become invisible to others. However, *metsänpeitto* can also express the experience of being enchanted by nature. Being "covered by the forest" becomes equivalent of feeling protected by the forest and of experiencing quietness, being away from everything that causes stress in the daily routine. (Haapala 2017.) Furthermore, terms like "*olla haltioissaan*" or *metsänpeitto* express the same concepts of "being enchanted" by nature and "being away" which are the key elements of the Attention Restoration Theory discussed in chapter two.

The author finds fascinating the strong connectedness between Finnish culture and nature. Living in Finland, her bond with nature has become much stronger. She, for instance, developed awareness of her body's responses to the changing seasons or started enjoying spending time alone in the forest, rather than be surrounded by other people.

However, even Finns could not escape modernization. The rapid phenomenon of urbanization brought significant changes in lifestyle. Although it led to positive improvements in the economy and modernization, the downside is that health issues have increased. For instance, results of a study revealed that urbanization represents the main factor that causes obesity among Finnish adults, since living in the city offers more opportunities to follow unhealthy diets and often implies having sedentary jobs (Halicioglu

2013, 654). Work related stress is another issue of urbanization and it can as well find a valid remedy in the exposure to natural environments. In the past years, Finland has conducted several studies to promote wellbeing at work and the recovery of employees from work related stress. In 2014, for instance, eleven companies participated in a study in which workers used their lunch break for ten consecutive days and joined either short park walk or relaxation exercises. The park walking group showed a better level of wellbeing after lunch and throughout the working day, compared to workers that kept their usual lunch break. (De Bloom et al. 2017, 23.)

Liisa Tyrväinen spent many years researching on the wellbeing effects of nature, and she conducted numerous studies, including partnerships with Japanese colleagues. Currently, she also writes about nature-based tourism and the importance of preserving forest landscapes in Finland. Particularly, professor Tyrväinen strives to demonstrate the economic value of forests and thus, to fight the loss of green areas in the country. For instance, she conducted a study among residents in Joensuu and Salo in which approximately half of the respondents said they were willing to pay, to prevent reduction and construction of forested area (Tyrväinen 2001, 84). The objective of those surveys is to demonstrate that both domestic and foreigner travelers value the nature landscape and do not expect to find instead, large areas of cleared forests (Sihvonen 2018).

In an interview, professor Tyrväinen says that well-being nature-based tourism can play a key role in preserving Finnish forests because it generates income, for companies and forest owners, that could be partly reinvested to maintain and protect the green areas. Companies and travelers could also directly give a monetary contribution for the forest owners, to keep managing and preserving the areas (Sihvonen 2018). This way there would be a more sustainable alternative to industrial forestry, which now represents the main source of income for forest owners.

Finland surely has the potential for becoming a leading destination to attract travelers interested in nature well-being holidays, and the reasons are various. To begin with, Finland is a country of forests, lakes, pure water, and clean air. The next subchapters briefly analyze the peculiarities of Finnish natural environment that make Finland a unique travel destination for finding well-being in nature.

4.3.1 Easy access to green areas and forests

Finland provides a high degree of naturalness, compared, for instance to Italy or Germany where intensive agriculture occupies most of the land. According to a study mapping

recreation opportunity in Europe, only about 35% of the population can easily access natural sites for recreation purposes (PEER 2012,19). The country is especially rich in forests. According to Eurostat (2018), the most forested countries in Europe are Finland (71% of total land area) and Sweden (67%). These two countries together account for almost ½ of the total forest and wooded land area of Europe. Most of the forests in Finland are private. The state owns only approximately one third of the Finnish forest while there are about one million forest owners in the country. In other words, one in five citizens own a forest. (Luke 2015.) Nevertheless, people have access to most of the green areas in the country, thanks to the concept of everyman's right or *jokamiehenoikeus*. This means that anyone can walk on other people's land and, for instance, pick berries or mushrooms. The concept of everyman's right is cherished among Finnish since about 80% of close to home nature visits are done in this type of environment, for a total of over 500 million visits per year. (PEER 2012, 20.)

The overall feeling when visiting or living as a foreigner in Finland is that nature is easily accessible, at least compared to more southern European countries. Even when living in highly urbanized areas, such as the capital city of Helsinki, one can still perceive the vicinity of urban forests and even to some national parks and protected areas. This characteristic is not common to all main European cities and it represents a significant advantage for the psychological well-being of residents. A study conducted among the adult Danish population concluded that there is a connection between the vicinity of green spaces and good self-reported quality of life as well as stress reduction. Results of the study showed that 82.1% of the respondents living within 300m from a green area evaluated their health as very good or good in comparison with 72.4% of respondents living more than 1km far from green spaces. The study also demonstrated that a higher percentage of stressed respondents declared that finding relaxation, peace and quiet were the most important reasons for visiting nature. (Stigsdotter et al. 2010, 414.)

On the other hand, living in heavy urbanized areas has proved to lead to lower psychological health. Researchers in the north area of Portugal interviewed 402 residents in 4 different areas, both classified as heavy industrial and non. Results showed that those living in grey areas scored lower levels of optimism and psychological well-being. Furthermore, in industrial areas characterized by air pollution, the tests gave even worse results, including symptoms of anxiety and depression. (Marques & Lima 2011, 319.)

4.3.2 The cleanest air

In Finland, the quality of the air is one of the best in the world. The air quality index is used to describe the quality of the air based on measurements. The index considers various

particles among which the respirable particles PM10 and fine particles PM2,5. The Finnish Meteorological Institute updates this data hourly. (FMI 2021.) The most dangerous are the fine particles called PM 2,5. These particles can travel deep into our respiratory tract, affecting breathing and causing other short- and long-term effects. For instance, allergy-type symptoms, asthma and in the worst case even heart disease and death. (WHO 2013, 6.) PM 2,5 particles is caused for instance, by fossil fuel-burning vehicles, industrial and household emissions (WHO 2013, 3). To better understand the impact of air pollution on individuals health, only in 2015 nearly 4.2 millions premature deaths were estimated globally as a direct result of air pollution, specifically of the PM 2,5 component (Nazarenko, Pal & Ariya 2020). Researchers also found evidence of a connection between PM 2,5 and moderate to severe anxiety symptoms in a sample of U.S. older adults (Pun et al. 2017, 345).

The World Health Organization air quality guideline suggests that the annual average of PM10 in urban and rural areas should not exceed 20 micrograms per cubic meter meanwhile the average of PM2,5 should not exceed 10 micrograms per cubic meter (WHO 2005). The last data available from the World Health Organization, collected in 2014 indicate that even big cities in Finland were below the limit recommended. For instance, in 2014 Helsinki registered the highest annual average of 19 micrograms per cubic meter of PM10 particles and 9 micrograms per cubic meter of PM2,5. On the other hand, Muonio registered only 4 micrograms per cubic meter of PM10 and 2.21 micrograms per cubic meter of PM2,5. (WHO 2016.) These results partly support the recent advertisement for Finland as the country with the cleanest air in the world (Turunen 2018).

Nevertheless, even in countries where the concentration of pollution is relatively low, the physical and emotional wellbeing of residents can be negatively affected. Increases of stress, irritation and annoyance levels can lower the individual's perception of wellbeing. In Estonia for instance, it was found that even just a low increase in PM10 concentrations affected negatively the individual self-reported life satisfaction. (Orru, Orru, Maasikmets, Hendrikson & Ainsaar 2016, 702.)

4.3.3 Blessed with silence

Finland is also blessed with quietness. More than 50% of the land of most of the countries in Europe is considered noisy or relatively noisy, according to data processed by the European Environment Agency. In some small but densely populated countries like

Denmark, those areas cover up to 90% of the entire surface. On the contrary, Finland is one of the few countries with the highest share of quiet areas. (EEA 2014, 51.)

Noise is one of the major pollutants in Europe. The continuous economic growth and the expansion of cities and transport networks causes a deterioration of the quality of the European soundscape. (EEA 2014, 54.) Excessive noise is a real threat and not just to human's well-being. It can cause several short-term and long-term health issues such as sleeping disturbances or cardiovascular problems. Noise can also prevent people from focusing on work or studies and even cause changes in social behavior. (WHO 2021.) Once again, nature offers a way to escape the urban context and find a calm environment instead, since trees can absorb noise. Moreover, as reviewed in chapter one, numerous researches showed that natural sounds are preferred over urban soundscapes (Zhang, Kang & Kang 2017) and facilitate recovery from stress (Alvarsson, Wiens & Nilsson 2010).

Finally, Finland is also rich in water. The country's surface counts a total of 187.888 lakes and ponds, 25.000 km in length of rivers (EEA 2020), and a shoreline of 314.000 km (TEM 2009,3). Numerous studies about the restorative effects of nature's view demonstrate that particularly, landscapes composed mainly by water are considerably preferred (Kang & Kim 2019, 8). The water element captures the attention and interest of participants at a significantly higher level, compared to urban landscapes. Moreover, watching water has a more positive influence on emotional state, compared to watching urban landscapes. (Ulrich 1981, 523.)

To conclude, the chapter reviewed the trend of well-being travelling at a global level as well as more in-depth concerning Finland. Through existing literature, the author also analyzed the various elements of the Finnish natural environment which make Finland a unique travel destination for well-being in nature, internationally. Furthermore, the deep relationship between the Finnish lifestyle and its traditions with nature was also investigated, as it represents the element of authenticity necessary when designing a tourist experience.

Although the COVID-19 pandemic brought uncertainty for the future of the travel industry, the author believes that Finland is a suitable destination for a niche of travelers who seek space and quietness in nature, safety, and quality of environment, in the future more than now. A consistent amount of research has been done so far about the topic, as well Finland launched several pilot projects to target the desired segment of travelers. Slow Finland (2017) and Rent a Finn (2019-2020) are projects which are part of the development strategies for the growth and renewal of the tourism industry of Finland. The

author believes that the product of mindfulness photography experience in forests is innovative and suitable for the brand identity that Finland is trying to present, to strengthen its positioning in the international tourism market.

5 Planning, execution, and evaluation of the product

This chapter is a detailed description of the project conducted by the author, which represents the main objective of her thesis. The subchapters describe each phase of the project as follow: The planning phase, which also includes the consistent literature research presented in chapters two, three and four, has as main sub objective the design of both the guided Experience of Mindfulness Photography in Finnish Forests and the handbook. The sub objective of the execution phase is the whole organizational and coordinational phase, which includes the delivery of the product designed by the author. The evaluation phase has per main sub objective the creation of the questionnaire and the interview. It describes the content and results of the qualitative research, and it assesses whether the outcome of the experience meets the predicted and desired results. Finally, each phase is compared and evaluated according to the original plan and goals.

5.1 Project planning phase

The planning phase of the project started with the author acknowledgement of the healing power of nature on the physiological and psychological well-being of individuals. The author herself experienced this sensation of well-being many times and thus, she started cultivating the desire for a deeper investigation into the topic. Furthermore, the author perceived compatibility between the restorative effects of being immersed in nature and the practice of mindfulness technique. Not only did the author start researching existing methods for experiencing mindfulness in nature. As a professional photographer, she also questioned the possibility to utilize a camera as a tool to practice mindfulness and thus, to reach the same benefits as in other methods already in use.

The literature reviewed first allowed a deeper understanding of how exposure to nature can lead to a general well-being sensation. The research around the topic of mindfulness, especially practiced in nature, served as a starting point for the design of the experience, which will be presented in the next subchapters. During the design process of the product, the author also referred to the main theories of experience economy and experience design learned during her studies in Haaga-Helia. Personal experience also had an impact on the planning process since the author has been reading and practicing mindfulness techniques for a year so far. The same applies to the theory and practice of photography as a tool to express concepts and emotions. The author has a long background as a photographer, and she has already explored the use of the photographic camera to express emotions and to observe personal thoughts and feelings. Her project, conducted in Denmark in 2013, was moved by the desire to understand the strong bond

between people, particularly children, and the natural environment, in Scandinavian countries. This phenomenon was new to the author, as she spent most of her life in a highly populated and urbanized area of Italy and thus left its mark.

The following subchapters give a description of the thesis product, the theories behind the design of tourism experiences and the method of mindfulness photography. The handbook, which is the main subobjective of the planning phase, is available as an appendix at the end of the report. In the handbook the guided experience is reported in numbered tasks, just as was presented to participants.

5.1.1 Experience design

In 1998, for the first time, the term of "experience economy" emerged, and since then, it has shaped the economy landscape and the way of doing business, regardless the industry. The experience economy introduced a new way of thinking in which the consumers value more the experience than the physical product, pushing companies to aim at delivering products and services that "exceed" customers' expectations. (Pine II & Gilmor, 2013, 21.)

Tourism experiences are based on emotions and thus, they must be designed with the goal of being meaningful and memorable (Tarssanen & Kylänen 2005, 137), by engaging travelers and creating value for them. Following the Four Realms scheme, tourism experiences can be designed considering two dimensions. The first one is related to the level of participation of the customers. As in figure 3, on the horizontal axes there are two extremities of the spectrum: active and passive. An active customer is involved in the production of the experience. This could be an example of outdoor sports activities such as skiing or Nordic walking. On the other hand, a passive customer does not really influence the experience but is more of an audience, listening and observing. The two extremities of the vertical axes are absorption and immersion, and they refer to the level of intensity which the customer experiences in relation to the performance. Furthermore, these two dimensions (horizontal and vertical axes) create four realm categories in which tourism experiences can be allocated. Watching a performance or listening to music are entertainment experiences in which the customer's participation is more passive and the level of connection is absorbing, using senses. In the educational type of experience customers are also absorbed in the activity but participation is more active since the experience involves focus and use of the body and mind. Esthetic experiences, like watching the northern lights, are immersive. Nevertheless, little participation is required, since the customer is often just an observer. Finally, the escapist experience offers an

immersive environment and moreover, requires active participation, like in the example of outdoor sport.

So far, the subchapter has illustrated how experiences can be designed according to the level of participation and the intensity of connection between customers and the environment. The author feels the need to mention a second model, which has been used widely in experience design to identify areas for improvements, development, and thus, with the aim of creating products that engage customers at all levels.

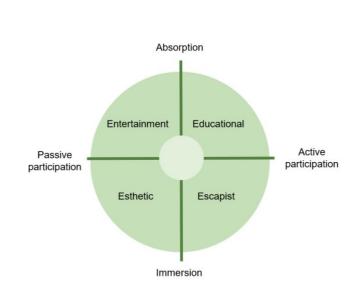


Figure 3. The four realms of an experience (adapted from Pine II and Gilmore, 1998, pp. 102)

Although experiences involve emotions and thus, they are perceived and evaluated subjectively, it is possible to create the conditions whereby companies can design a valuable and memorable product for customers (Tarssanen & Kylänen 2005, 138). The Experience Pyramid works on two levels. At the bottom of the pyramid (figure 4) are six different elements of a product that companies can develop and offer to customers, to engage them at five levels. The more elements companies include in the product, the better the chance are to bring an intense and emotional experience to their customers (Tarssanen & Kylänen 2005, 139). It is important that the six elements are included at every stage of the customers' journey. From the moment they see the product advertised, to the purchasing and until the follow up marketing.

The first element is *individuality*, which refers to the uniqueness of the product, among the competition. Individuality also indicates the level of personalization. When a product is tailor-made, it satisfies the needs and preferences of the customer (Tarssanen & Kylänen 2005, 140). *Authenticity* reflects the credibility of the product in relation to the environment. For instance, an experience that respects the lifestyle and traditions of a country is perceived as credible in that specific environment. The *story*, or a theme, adds meaning to the product and enhances the authenticity and memorability of the experience. *Multi-sensory* perception, as the term suggests, is the capability of the product to engage customers through their senses. *Contrast* is reached when the product gives the customer the sensation of being in a different place than the usual environment. Finally, *interaction* happens between the customer and the company as well as the other travelers. It plays a key role in giving the customer a feeling of appreciation and of belonging to the group.

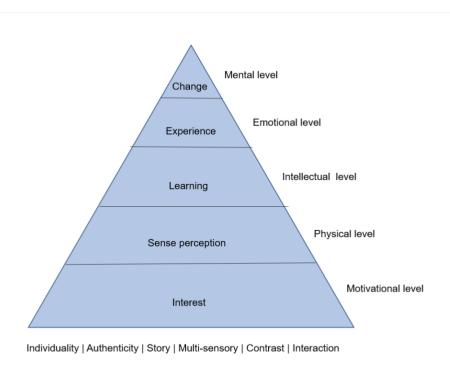


Figure 4. Experience pyramid (adapted from Tarssanen & Kylänen 2005, pp. 139)

As mentioned above, the model works on two levels. The six elements previously explained are the peculiarities that companies should develop and include in the products, to give customers all six levels of engagement in the following order. At the bottom of the pyramid is the *motivational* level. It refers to the company's ability to draw customers' attention to the product and thus to buy it. The next level is *physical*, and it involves the moment at which the customer is physically present and involved in the experience. At

this level, companies should make sure they deliver a good quality service, and they make the customer feel safe and comfortable. The *intellectual* level is reached when the customer is given the opportunity to learn something new like a skill or information. On the top levels of the pyramid are emotions and mind. The *emotional* level is difficult to predict since emotional reactions vary from person to person. However, if the product has been built considering all the elements at the base of the pyramid, the customer should respond positively. The highest level, the *mental*, is reached when experience leads to a powerful emotional reaction in the customer, who is willing to embrace a change or, for instance, a new lifestyle.

The author has considered the model of the Experience Pyramid, when designing the product of the thesis. The experience of mindfulness photography in Finnish forests is innovative and thus unique. To the author's knowledge, there is not such a product yet offered in Finland. Individuality is also one of the main strengths of the experience as the outcome is closely tied to the participants' individual effort and level of motivation. Concerning authenticity, the product matches perfectly the Finnish mindset and lifestyle. As illustrated in chapter four, the image of Finland is of a country where there is abundant nature and where inhabitants proudly embrace a no-hurry way of living. Therefore, the location (forest), the content (mindfulness photography) and the purpose of the experience (to enhance the participants' well-being), truly reflect the concept of Nordic well-being. The story that gives meaning to the product is the method of mindfulness applied through photography, and the research around the beneficial effects of being in nature. The author has deepened her knowledge around the topic and thus, she is able to pass information on to participants. Furthermore, the product is multi-sensory. Although sight is the main sense involved in the activity, participants are invited to connect with the natural environment using other senses as well. Contrast is reached in a way that forests, although they are seen as a familiar place for many cultures, represent an environment that offers a hideaway from the busy urban environment. In chapter two, the Attention Restoration Theory of Kaplan refers to nature as a restorative environment that enchants, gives the feeling of being away from the stressful routine and finally that heals the body and mind. Finally, interaction is present from the beginning until the end as the author guides participants through the main concepts of mindfulness photography. Moreover, the handbook contains all the tasks and recommendations that participants need to follow, to get the best out of the experience. Thus, even if participants deal with their own thoughts and emotions, they are guided throughout the whole experience.

To conclude, the author predicts that the experience of mindfulness photography in Finnish forests will engage participants at all levels, to the top of the pyramid. The tasks

are designed by the author with the purpose of giving participants knowledge, time, and space to learn a method that can bring positive changes on a physical and mental level, especially if repeated individually further in their daily routine. Moreover, the project includes an evaluation phase in which the author collects, and measures results through a questionnaire and an interview and writes her conclusions about the effectiveness of the experience.

Meantime, the experience economy has evolved, and the travel industry is adapting to a new way of creating services and products. The transformative travel experience, which recalls the last level of the Experience Pyramid, is now a growing trend. This type of experience enables people to achieve personal growth, personal fulfillment, and self-improvement. It can take place in many ways and can use different tools, provided that the traveler reaches a sort of positive shift at the end of it. For instance, in a survey conducted in 2017 by Skift, being involved in a reflective moment was, for 30.3% of the interviewed, a way to achieve inner transformation. (Skift 2018, 6.)

5.1.2 The future of transformative travel experiences

The tourist demand for immersive and emotionally rich travel is growing. People are in search of meaningful connections with self as well as with nature and other people. (Seeler & Schänzel 2019,111.) The trend of transformative travel reflects the change in people's behavior, which is influenced by nowadays society and the economy. The psychology of motivation of Abraham Maslow, which is a well-known model for the development of tourist products and services (Korstanje 2012, 162), illustrates this shift in consumers' behavior. The experience economy and so the travel industry are switching to the last step of the hierarchy of needs, which is self-actualization. In other words, companies are focusing increasingly on selling their products as essential elements to help customers reach their full potential or the best version of them. (Skift 2018, 9.)

As the term may suggest, transformative travel involves a transformation which is initiated during a trip. Personal transformation is a process that supports a shift in the person's way of thinking, acting, believing, and sensing (Ross 2010, 54). The person who first talked about transformative travel is the psychologist Kottler (1998). He saw in transformative travel experiences a more effective way than books or conventional therapy, for processing personal dilemmas and for opening the mind to new possibilities. In fact, transformative travel puts individuals in completely new situations and pushes them to reinvent themselves and to find internal strengths and resources. (Kottler 1998, 25.) Kottler himself utilized a trip to Aruba as an incentive to undertake several actions that

helped him to achieve a transformation. Creating the right mindset is the starting point of a transformational journey in which individuals need to be opened to embrace changes. Being away from the usual context and separate from other's approval and influences, allows people to have clear thoughts. Moreover, a transformation occurs if a person is proactive or willing to engage in new and stimulating activities. Finally, being systematic and persistent since a transformation requires daily effort and a trip is just the beginning. (Kottler 1998, 24-25.)

However, transformative change can happen anywhere and at any time because it is subjective and differs from person to person (Ross 2010, 56). Therefore, it does not necessarily involve a huge step, like moving somewhere else or quitting jobs or relationships. It is not always about changing circumstances but also about learning something new that can be brought home and applied repeatedly, until it becomes part of one's own way of thinking and behaving. (Kottler 1998, 28.)

To conclude, transformative experiences cannot be constructed but only invited (Gaggioli 2016, 106). Authentic transformation requires the person to be proactive. Thus, companies can design experiences that support and guide towards a change, but the ultimate product is created by the customers self (Pine II & Gilmor, 2013, 40). Whether people are driven by intellectual curiosity, emotional need, or desire for physical challenges (Kottler 1998, 26), the ultimate motive for undertaking a transformative journey, is the search for meaning and fulfilment (Robledo & Batle 2017, 1738). The author assumes that cultivating consciousness and self-awareness represent the right approach to a personal transformation. The product of her thesis has the main goal of stimulating curiosity towards a method that, if embraced and cultivated in one's daily life, can bring inner change as well as physical and psychological well-being. However, the author is aware that the experience is individual and that the project will give multiple outcomes.

5.1.3 The use of photography as a tool to practice mindfulness

Pictures are a powerful tool of communication and they are widely used in the media, often to support a text, to convey messages more effectively. Photographs offer a concrete presentation of expressed concepts that otherwise would be too abstract or difficult to assimilate by the audience. (Suler 2013, 102.) Moreover, images convey thoughts and emotions.

The action of composing an image requires, to some extent, attention to details and focus on one's own surroundings (Kurtz 2015, 354). However, often, when taking photos, people are too busy thinking of the best result, that they miss what is going on around them. This is common, for instance, when people stand in front of a stunning and popular landscape and, the urgence of replicate the exact same image seen on a certain Instagram post is stronger than the desire of stopping from any activity and enjoying the view. In a study conducted during a museum tour, the participants, who were asked to take pictures of the whole artwork, remembered a fewer number of objects or their details, compared to the participants who were asked only to observe. Results confirm the fact that the participants taking pictures used their time to focus on the right angle or to adjust the lens, to achieve the best result, meanwhile they missed the object, relying on the camera to remember for them. (Henkel 2014,401.) Even without the example of the photographer, this process of overthinking, judging, and creating expectations is experienced in every person's daily life. Thoughts, desires, and expectations act like filters and prevent people from experiencing things that happen around them (Suler 2013, 277).

The author, who is herself a professional photographer, started to wonder whether photographing, done the way people often do it, represents more of a distraction rather than a tool that facilitates consciousness and awareness of the present moment. This reflection raised interest in the idea of using photography as mindful practice. Taking photos in a regular environment, where nothing extraordinary seems to happen, increases consciousness, and appreciation of the ordinary. A more mindful approach to photography can enhance awareness of the beauty of the surrounding. Through this method, photographers are encouraged to be curious, to pay attention to small details that they would probably not notice otherwise, and to be aware of the reason they are attracted to that particular subject. For instance, the previous study of the museum presented further results in which the same participants, who were later asked to take pictures of details of the artwork, remembered more accurately the objects as well as the details that were zoomed in. Findings confirm that engagement during the effort of increased attentional level improved participant's memory capabilities. (Henkel 2014, 400.)

Mindfulness photography acts the same way as meditation. Individuals are conscious observant of the present moment, of their own thoughts and feelings, without being judgmental but accepting the reality of their life situations. However, during both practices the mind naturally starts to wonder. Thoughts travel to the past and to the future causing mental noise that diverts attention from the present. The technique of mindfulness uses elements like breath or external sounds to detect this behavior and thus, to bring back the mind to the present moment. Similarly, photography uses the camera as an anchor to the

present. The action of taking photographs requires individuals to slow down and pause. The photographer starts noticing details such as the direction of the light, colors, or patterns. Finally, the action of framing and capturing the image. As a result, images are more intimate since they represent something that somehow has captured the photographer's attention as well as touched his senses and feelings. Therefore, the practice of mindfulness photography increases consciousness about the emotional bond that connects the person to the subject and to the specific moment that is about to be captured through the lens. Moreover, individuals engaging in mindful photography can experience a state of total immersion. The author hypnotizes that this immersive sensation is further enhanced by the natural environment, due to its restorative power, as seen in chapter two.

The mindful state is also non-judgmental. During mindfulness meditation the person recognizes the moments in which the mind wanders and welcomes thoughts and feelings as they are, without labeling. For instance, the reality faced during mindful practice may involve negative emotions such as anger, anxiety, fear, loneliness, or sadness. In a habitual non-conscious state, the mind would start fighting this reality labeled as "no good" causing further emotional suffering. However, in a mindful state the person learns not to analyze and judge reality as good or bad. In mindfulness photography the same mechanisms apply. The photographer practices walking without expectations and open to any possibilities. Concern about the possible result is not driving at the moment. In practice, photographers do not look for the subject, to replicate the image they might have in mind but rather, they observe the environment with new and opened eyes, and they let the photo come to them (Suler 2013, 278).

Finally, mindfulness promotes acceptancy of the reality of one's own life situation. For instance, in the time of COVID19 the author, like thousands of other people, is facing difficulties accepting a reality that is filled with uncertainty. The impossibility of travelling home and rejoining the family, the limitations imposed on daily life and social distance, are conditions that the mind refuses to accept. Without letting go of the negative feelings that arise from the present situation, the body and the mind will accumulate negative energy, which might lead to physical pain and illness, such as depression. However, practicing mindfulness gives us the chance to drop all those feelings and to realize that the situation is not under our control as well as it will go away, since everything changes in this life, and nothing lasts forever (Tolle 2004, 159). Likewise, mindfulness photography boosts the feeling of gratitude, as the person perceives the beauty of small details in unexpected places and practices being thankful for their existence. For the thesis project, the author applies mindfulness photography in the natural environment and designs the experience

of Mindfulness Photography in Finnish Forests, which is described in the following subchapter.

5.1.4 Product description

The previous subchapter explored the benefits of using photography as a tool for being in the present moment and thus, to practice mindfulness. Furthermore, reviewed literature in chapter two justified the potential for the natural environment to improve the physiological and psychological wellbeing of individuals. Nature is considered a restorative environment. The most common physiological effects measured in most of the cited empirical studies are boosted immune functions, stress reduction (slower pulse rate and lower blood pressure), and illness prevention. These benefits are caused by phytoncides and other natural compounds released by trees as well as the absence of noise pollution and the presence of better clean air. Furthermore, studies supported the theories that associate prolonged contact with nature to attention restoration, due to a soft fascination exerted by elements in nature, and thus to healing and calming effects. The main theory behind most of the empirical studies reviewed in the paper is the Attention Restoration Theory ART of Kaplan, which supports the idea that all those restorative effects happen without the person's consciousness and passively, so without any effort.

However, researchers have tried to understand whether an active engagement with the natural environment can further enhance attention restoration and sustained attention of individuals. In a study conducted at the National Taiwan University, 138 participants were passively exposed to pictures of several types of street landscapes, with less or more greenery. In addition, one group was given instructions to actively observe the greenery present in the images. Results showed that participants following the awareness task measured a higher score on tests of direct attention. Thus, the study confirmed that raising awareness of greenery improved directed attention recovery, in addition to perceived restorativeness. (Lin, Tsai, Sullivan, Chang & Chang 2014, 5.) Researchers in Finland conducted a similar experiment in which participants had to walk a natural path with or without following instructions. In this study, the tasks were especially created to facilitate physical relaxation, awareness of the natural environment and reflection on one's life situation. In the results, participants following the tasks measured better improvements in sustained attention. To conclude, restoration enhancement tasks can increase the benefits in individuals visiting nature, support attention restoration and promote a different type of interaction with nature. (Pasanen, Johnson, Lee & Korpela 2018, 20.)

Based on previous empirical studies and on Kaplan's Attention Restoration Theory the author created a guided experience of mindfulness photography in Finnish forest, which combines easy mindfulness exercises applied in a natural context, utilizing the tool of photography as an anchor to stay in the present moment. The aim of the experience is not to teach photographic techniques nor mindfulness but to create the conditions, for participants, to cultivate attentiveness to the surrounding, to practice awareness of their own thoughts and emotions, and to rediscover nature as a source of physical and psychological well-being. As summarized in figure 5, the author assumes that taking photos in a natural environment promotes a soothing experience that can be repeated, to promote overall well-being and to help cope with everyday stressful life. The focus on photography allows individuals to clear their minds and to experience the now. Meanwhile, the natural surrounding performs its relaxing function.

From a photographic perspective, there is no need for previous knowledge. Participants get inspiration from the elements of nature and take pictures according to the different tasks planned by the author. As a result, participants will collect a series of introspective and intimate photos. The guided experience does not require participants to share their pictures, but it suggests getting back to those images later, as a reminder to take a moment to stop and to focus on the present. This is slightly different from traditional conceptual photography in which photographers try to use the image as a channel to convey an idea and thus, to stimulate the viewer to question themselves in order to get the message (Suler 2013,105). In mindfulness photography the image becomes the space in which participants gather their mindful thoughts and emotions. Moreover, the use of a smartphone gives total freedom from technicality, allowing participants to boost their creativity and to observe with open eyes and mind. The intention is to avoid situations in which participants would rather be busy thinking about camera setting options or the quality of the image. Participants are welcome to use any technique that supports and facilitates the process of expressing feelings and thoughts (Suler 2013,111). For instance, prolonged exposure that increases brightness and gives motion, blur effect or a less balanced frame composition are not seen as technical mistakes but as freedom of expression.

Participants are encouraged to look for inspiration in the simple elements of nature that can be found easily. For instance, observing the natural light and how it filters through the trees or how the changing of the seasons affects colors in nature. This practice increases the ability to pay attention to small details in a regular environment, as well as the feeling of gratitude for the surrounding beauty. Not being in front of breathtaking views, already seen thousands of times on Instagram, will free participants from the urgency of taking

pictures that are good enough to be posted on social media. The experience is simply an invitation for the participants to open their eyes and minds and to observe silently what happens in their surroundings. Finally, the author hopes to create an educational context that will engage participants and stimulate them to practice the same method, further and on their own.

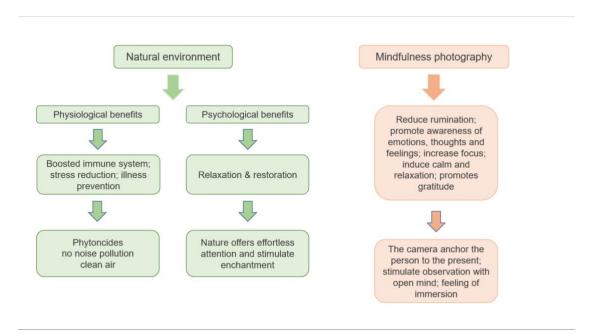


Figure 5: summary of the product's benefits (originated by the author)

The handbook, created by the author, includes several tasks which main purpose is to provide a guideline through the main points of the experience as well as to limit the number of photo's attempts. Having at one's disposal a restricted number of shots is a process that recalls the use of films in photography. Surely digital made photography accessible to everyone, thanks to cost reductions and storage capacity of memory cards. On the other hand, having infinite possibilities reduces the attention to details and to composition. Thus, for the mindfulness photographic experience, participants will produce only one picture for each task. The author hopes that the imposed limit combined with the guided tasks will push participants to consider more carefully what they want to communicate and how they relate to the subject of the image that captured their attention. The author, who started her career as a photographer before the market switched to digital, is a witness to the process according to which a photo starts in the mind, even before the shutter is pressed.

The duration of the whole experience is estimated to be about 2 hours. From a marketing perspective, a short duration makes it easier for travelers to fit the activity into their plans

as well as for residents of Finland to be able to join the experience any time of the year. Furthermore, exposure to natural environments has been proved to have positive effects already in a short time. For instance, a multi study analysis illustrated an improvement in mood and self-esteem of participants after only 5 minutes exposure (Barton & Pretty 2010, 3949).

Finally, the tasks have been carefully planned to enhance physical relaxation and boost a positive mood. For instance, participants are asked to observe nature's details, engage in a slow pace, practice gratitude and acceptance. Taking photos of the elements of nature helps individuals to connect with the environment. Furthermore, participants are invited to take notes and photos at home and to look at them later. This process helps recollection of one's own thoughts and emotions and prolongs the desired beneficial effects.

5.2 Project execution phase

The execution phase of the thesis project includes the arrangement and the implementation of the Experience of Mindfulness Photography in Finnish Forests. In this subchapter the author describes the process of handling tasks such as finding the right venue, recruiting participants, and communicating with them, scheduling the tours, and supervising during the activity. Furthermore, the author illustrates the structure and the various steps of the experience she guided. However, a more visual description can be found at the end of the report as Appendix 4.

Although the author had an extensive list of beautiful natural spaces in the Helsinki area suitable for this activity, the choice fell on the area of Keskuspuisto for a couple of reasons. First, the author considered the popularity of the area and the fact that it is located in the middle of the city and thus within easy reach. Secondly, the author looked for an area in which participants could move easily, without feeling lost. Keskuspuisto is an almost ten kilometers, popular recreational area that goes from close to Helsinki city center to the northern border, with the river Vantaanjoki (Helsinki Marketing 2020).



Figure 6: map of Maunula trail area (citynature.eu 2021)

Participants were chosen from among the author's personal network. Given the current difficult situation due to COVID-19 restrictions, it was not possible for the author to recruit actual international tourists. On the other hand, the author was able to recruit participants from diverse backgrounds and nationalities. The total number of participants was 9 and nationalities were Italian, Finnish, Canadian, Mexican, Iranian, Vietnamese, Argentinian. Participants were between 20 and 39 years old. The author tried to have a balance of female and male participants. However, most of the person who volunteered were female.

The author guided a total of 7 tours between the 22nd of March and the 1st of April. The day and time of the tours were planned together with participants. The author was very flexible when scheduling the tours as, at that time she was laid off, due to COVID-19 restrictions introduced for restaurants. Initially, the idea was to organize tours with four to six participants. Nevertheless, since the COVID19 situation was critical at that moment, the author decided to organize private tours, or with a maximum of two participants, to ensure safety and to obey the recommendations.

The tours took place around the Maunula Nature trail (figure 6). The starting point was the Maunula hiking lodge (Maunulan Ulkoilumaja) in Metsäläntie 9, which offered participants benches and tables as well as toilet service. On some days and in some hours, the lodge is open and serves as café. Nevertheless, the author tried to schedule the tours during working days and in morning hours, to guarantee a not crowded and thus safer environment. The Maunula Nature trail is about 3.3 kilometers long, with a diverse landscape, including a few cliffs. However, the author took the liberty to change the path whenever needed, considering the weather conditions and the participants' skills and disposition in a forest environment. Finally, the Maunula trail is located close to Haaga-

Helia campus, which served as a backup indoor location for conducting the interview, on the coldest day.

The communication was handled entirely through Facebook and WhatsApp. Participants got an official invitation to the tour through Facebook, as the author created a post for an event (Appendix 3) in which she explained the content of the activity as well as the address of the meeting point, the scheduled time, what to bring and recommendations on how to dress, as the activity took place outdoor. Furthermore, the author sent a reminder to participants the day before each tour.

Once arrived at the meeting point of Maunula hiking lodge, participants received an introduction to the event, which included an explanation of the purpose of the author's thesis and some of the theories behind the design of the experience of Mindfulness Photography in Finnish Forests. After the introduction, participants filled in the first self-report questionnaire to measure their perceived well-being pre-activity. The tour was organized so that the author would guide participants through 5 photographic tasks, walking on a circular path and then returning to the starting point. During the walk, the author illustrated some of the concepts of the mindfulness method and how to apply them through photography. Moreover, she introduced the topics of each of the 5 tasks, to make it easier for participants to understand the concepts and to complete the activity without struggle.

Since the whole experience was built around the concept of slowing down and feeling of no hurry, participants were free to complete the exercises without an appointed time. Thus, the length of each photographic task varied each time, but never exceeded 20 minutes. Participants were also free to combine the tool of the photo camera with the technique of journalism, to make notes for instance, of internal emotions and thoughts, to relate the process of capturing the image or simply to remember some of the reflections shared by the author. For this purpose, 10 small notebooks made of recycled paper were designed before the implementation of the tours.

After completing the last task, the author guided participants along the remaining path and back to the initial meeting point. Participants then filled in the second self-report questionnaire to measure their perceived well-being post-activity. Afterwards, the author provided a small refreshment with healthy snacks and herbal tea. The idea was to make participants feel comfortable and to allow them to have a short break before conducting the semi-structured interview. In general, the author calculated that each tour lasted about

2 hours excluding the time for filling in the questionnaires and recording the interviews, which required an additional hour.

Finally, the author sent a follow-up thank you message to each participant, enclosing the PDF handbook (Appendix 1) designed in the planning phase of the project, which contains the main concepts and reflections covered during the activity. Participants were invited to use the handbook to practice again, on their own, the method of mindfulness photography in the forest. Some of the participants also wanted to share some of the photos taken when completing the photographic tasks. The author then made a photo collage which can be also found (Appendix 2) at the end of the paper.

5.3 Project evaluation phase

The main objective of the evaluation phase was to analyse the data collected during the implementation of the tours, and to assess whether the outcome of the experience meets the predicted and desired results. In the following subchapters the author illustrates the methods used to collect data from the participants and then reports on the results of the self-reported questionnaires and semi-structured interviews.

To validate the restorative effects of the experience on the participants, the author used two different methods for collecting data. Participants filled in a self-report questionnaire, before and after the experience, to measure eventual improvements in their perceived state of well-being. Furthermore, semi structured interviews were conducted at the end of each guided tour, to investigate deeper into the participants' perception of the experience guided by the author.

The following subchapters describe in detail the above-mentioned methods used for collecting data during the tours and the questions the author aimed to answer in her attempt to evaluate the success of the Experience of Mindfulness Photography in Finnish Forests. Moreover, the findings of the self-report questionnaires and semi-structured interviews are analysed and reported.

5.3.1 Methods utilized for collecting data

To assess the effects of the experience of mindfulness photography on participants the author chose a qualitative approach since the purpose was not to prove numerically the effectiveness of the product, but rather to understand the participants' personal experience and emotional reaction. However, the author addressed two questions, which

she answered using self-report questionnaires and a semi structured interview as methods to collect data.

The first question aimed to measure if and to what degree participants felt an overall increased sensation of well-being after the tour, including a state of quietness, attentiveness of the surrounding environment and of the present moment, consciousness of own thoughts and feelings and sense of gratitude. To address this question the author created a self-report questionnaire with rating scale questions. The second question aimed to a deep understanding of how participants perceived the experience guided by the author. To address this question the author interviewed participants at the end of each tour, following a semi-structured interview template.

During the process of the literature review, the author has analysed many empirical studies using well-known self-reported scales, from which she was inspired. Participants answered the questionnaire before and after the activity. The questionnaire was created in Webropol and included a foreword in which the author explained the aim of the questionnaire and thanked participants. In Table 1, the author describes the purpose of each group of questions and their connection to literature.

Table 1. Research matrix for the self-report questionnaire

Questions	Purpose	Connections to literature
Demographic questions (1,2,3)	The purpose is to find out if there are similarities in the results, according to gender, for instance. Moreover, to have diversity in the group.	
Questions about present skills (4,5)	The purpose is to understand if having knowledge of photography can influence results negatively. On the other hand, a knowledge of mindfulness method can facilitate experience.	Participants taking pictures used their time to focus on the right angle or to adjust the lens, to achieve the best result, meanwhile they missed the object, relying on the camera to remember for them. (Henkel 2014,401.)
Questions about the level of familiarity with the forest environment (6,7)	To explore the participants' level connectedness to nature. The level of familiarity with the forest environment might influence the outcome of the experience, according to ART.	One of the principles that defines an environment as restorative is compatibility, which means that the environment in question needs to support the current purpose allowing participants to carry on the activity feeling comfortable and without struggle (Kaplan 1995, 173)

Questions about self-perceived sense of calmness (10,11) and the effects of the type of environment on participants' level of relaxation (12,13,14)	The author wants to find out if the type of environment influenced participants' sense of relaxation. Particularly, if the forest environment enhanced the positive effects of the whole experience.	The natural environment induces fascination and effortless attention toward its elements. Thus, the mind is given the chance to restore (ART)
Questions about awareness of the present moment (15,16,17)	The author aims to explore if the experience encouraged attentiveness to the present moment and the surrounding.	Mindfulness photography is an engaging activity that induces an immersive state. Furthermore, the camera functions as an anchor that brings participants' attention back to the present moment, every time their minds start wandering.
Questions about consciousness (18,19,20,21)	The purpose is to find out if the tasks designed by the author promoted participants' reflection of their own thoughts and emotions.	Photographs offer a concrete presentation of expressed concepts that otherwise would be too abstract or difficult to assimilate (Suler 2013, 102.) Moreover, images convey thoughts and emotions.
Questions about perceived sense of gratitude (22,23)	The author aims to find out if the experience enhanced a sense of gratitude and appreciation toward the beauty of nature and, in general, of life.	The mindfulness photography method encourages participants to explore the surrounding with an open mind and eyes, and to notice the beauty that often goes unnoticed.

The first part of the questionnaire has demographic questions which aim to eventually find similarities in the results. The second part has questions in which participants tell their level of knowledge of photography and mindfulness. Although the experience does not require participants to have knowledge about the topics, the author believes that a previous knowledge of the mindfulness main concepts or of the photographic technique, might eventually influence the outcome of the experience and thus, the information is relevant. Especially, having knowledge of photographic technique might influence the results negatively. Professional or semi-professional photographers have the tendency to focus particularly on technicalities such as right angle or lens adjustments, to achieve the best result, missing so the subject and the entire moment and relying on the camera, to remember for them (Henkel 2014,401). On the other hand, a knowledge of mindfulness method can ease the activity.

Further questions aim to explore the participants' level of connectedness to nature. In the Attention Restoration Theory of Kaplan explored in chapter two, one of the principles that defines an environment as restorative is compatibility, which means that the environment in question needs to support the current purpose allowing participants to carry on the

activity feeling comfortable and without struggle (Kaplan 1995, 173). Thus, the question aims to find out if participants see the forest environment as familiar or not, since it might influence the outcome of the experience.

Finally, the third and main part of the questionnaire is composed of rated scale questions in which participants self-assess if and to what degree they measure a difference in their perceived well-being after completing the tour, compared with before. In self-reported measures participants are asked to report directly on their own behaviours, beliefs, or perceptions for instance (Lavrakas 2008). This type of measurement is largely used in psychological studies although it has limitations, since data are subject for instance, to the participant's accuracy, honesty or to the personal interpretation of the questions (Pedneault 2020). Therefore, it is common in empirical studies to combine self-reported scales with objective measures that do not rely on the respondent's self-assessment. In most of the studies cited by the author for the purpose of this thesis, the second method included physiological measures such as Hearth Rate Variability (HRV), salivary cortisol and blood pressure levels while others combined multiple self-reported scales. However, the author does not have the competence or the equipment to conduct this type of study.

Nonetheless, to support the results of the self-report measurement and to answer the second question of how participants perceived the experience of mindfulness photography, the author conducted semi structured interviews after the activity. The idea of the semi structured interviews was to lead a relaxed and dynamic conversation in which participants would answer the questions but also share their feelings about the activity.

With the first questions the author tried to find out what kind of sensation participants felt after the tour, what kind of expectations they had, and what they enjoyed most from the whole experience. To get more insight into the organization and the arrangement of the tour the author asked participants to express their opinions concerning, for instance, timing as well as the quantity and quality of the content shared by the author during the activity.

The experience was particularly designed for encouraging participants' attentiveness to the present moment and own surroundings, and for promoting consciousness towards one's own emotions and thoughts. Thus, during the interviews the author asked participants to describe their experience related to the practice of writing down their thoughts, observing the details of the forest environment and slowing down physically and mentally. Moreover, understanding the participants' personal relationship with the forest environment was relevant data for the research. Finally, the author asked some feedback

questions which aimed to receive suggestions for further improvements. The self-report questionnaires (Appendix 5 and 6) and the semi-structured interview (Appendix 7) can be found at the end of the report. Findings are described in the following subchapters.

5.3.2 Findings of the self-report questionnaires

The participants filled in a self-report questionnaire, to assess their perceived well-being both before and after taking part in the experience. The author aimed to find out if, and to what degree participants felt an overall increased sensation of well-being after participating in the activity.

As mentioned in the project execution subchapter, participants were 9 in total and 89% were female. Their age was between 20 and 39 years old. The author aimed to have a multicultural group including both Finnish citizens and foreigners. Although all participants have been living in Finland for at least a year, their nationalities were Italian, Canadian, Mexican, Iranian, Vietnamese, and Argentinian.

The first two questions aimed to measure participants' knowledge of the photographic technique and of the mindfulness method. 89% of participants had no knowledge or basic knowledge of the photography, while only 11% mastered the photographic technique. The knowledge of mindfulness method had a similar result, with 67% of participants who never heard of mindfulness, 22% who practiced mindfulness once or more than once and only 11% who engage regularly in mindfulness practice.

The level of familiarity and compatibility with the forest environment was high as all participants live in Finland and thus, they are used to visit forests. In the questionnaire 90% of respondents answered that they feel comfortable or very much comfortable in a forest environment. Also, 70% said they visit forests at least once a week.

To measure the overall well-being sensation, including feeling of calmness and relaxation, awareness of the present moment, positive feelings, and sense of gratitude, participants answered the same questions before and after participating in the experience. In the preactivity questionnaire participants were asked to choose and describe a specific time lapse experienced within the few hours that preceded the meeting with the author, and to rate their feeling of calmness, for instance, choosing a value from 0 to 10. Participants recalled moments like having breakfast at home, buying groceries, or running. Whereas,

in the post-activity questionnaire participants assessed the same criteria but referring to the time during which they were taking part in the experience.

The average feeling of calmness was measured 6,4 in the pre-activity questionnaire with minimum value rated as 2, while in the second questionnaire it was measured 8 with a minimum value of 6. Moreover, the mental state of rushing, which in the long-term causes fatigue and stress, was measured on an average of 5.1 in the pre-activity questionnaire and only 1.6 in the post-activity questionnaire, suggesting that the author succeeded in conveying a relaxing and calm atmosphere.

Participants rated their perception of being surrounded by a peaceful environment on average of 9.1 with a minimum value of 7, while participating in the experience. The feeling of being away from the usual routine was assessed with an average of 8.8 in the post-activity questionnaire compared to 3.3 before participating in the experience. Furthermore, participants rated their level of attraction and interest toward the surrounding environment with an average of 7.3 during the experience, compared to an average of 2.9 in the first questionnaire.

The self-assessment measurement of participants' attentiveness in observing and listening to the surrounding natural environment was also encouraging. Participants assessed their willingness to pay attention to details, smell or sounds of the surrounding environment with an average of 9 with minimum value of 6, compared to an average of 4.7 with a minimum value of 1, in the pre-activity questionnaire. The level of engagement in the present moment was also rated more positively, as well as the ability to focus on the activity, without being too distracted by their own thoughts.

The last two questions aimed to measure participants' level of perception of the surrounding beauty and to identify positive and negative emotions experienced by participants before and during the activity. Participants rated their perception of the beauty of the surrounding environment on an average of 8.2 during the experience, compared to an average of 5 in the first questionnaire. Furthermore, positive emotions like serenity, gratitude, kindness, and enjoyment significantly increased after the experience. On the other hand, negative emotions such as anxiety, fear and loneliness decreased after completing the activity. A participant also mentioned stress in the first questionnaire, which was not repeated whereas in the second questionnaire two participants mentioned reliability and connection.

5.3.3 Findings of the semi-structured interviews

The author conducted semi structured interviews with all participants at the end of the experience. The intent was to get more in-depth data about the kind of experience participants had and how they perceived the way the experience was organized and guided. The interviews started with a question which aimed to assess whether participants had felt increased feelings of relaxation and a positive mood, as predicted by the author. The general well-being sensations after the experience were quite positive. Answers like "I feel good," "I feel relaxed and calm" appeared in all interviews.

Understanding the level of connection between the participants and the forest environment was important in order to demonstrate the theories of the Attention Restoration Theory (ART). Almost all participants described the forest as a familiar environment meaning that they enjoy spending time in it for a variety of reasons such us jogging, thinking and problem solving, as a remedy to detox from the stress of their own life and to breath fresh air. Some of the participants reminded of their past in which the forest was a steady presence and thus, being in the forest in Finland "brings back those good memories." Only one participant showed non compatibility with the natural environment. However, no feelings of fear or stress were reported in the interview.

The author then asked questions about the structure of the activity. Particularly, it was important to get impressions on how participants felt about not having an appointed time for completing the tasks, as well as about being guided by the author, rather than completing the whole activity on their own. From the answers collected it was clear that having freedom to complete the tasks at one own pace was beneficial for the participants, to slow down and relax. No one felt like not knowing what to do with the time available and they all agreed that, with warmer weather conditions, they would have spent more time between each task. Participants also agreed that the presence of the author guiding them added value to the experience as they appreciated the possibility of "interaction," "connection", and "learning from others' experience."

When asking about the practice of slowing down, answers like "I felt, I was still rushing inside," "I am so doing things fast all the time" or "I am always focused on how to get fast to the destination" suggest that participants had difficulties giving up their internal hurried pace. On the other hand, the elements of nature facilitated the practice of stopping and observing details. Answers showed that participants felt curious about observing closer details of trees' trunks, for instance, or getting closer to animals. Moreover, the thoughts shared by the author were a stimulus to explore the forest attentively, to find meaningful

connections between some elements of the forest and participants' own life experiences, and to contemplate about the role of all living beings in life. For instance, a rock symbolizes for a participant the desire of an anchor in her own life, and an eternal element in the forest which witnesses continuous changes.

The exercise of writing down thoughts and emotions was also perceived useful and engaging. Participants used the small notebook made by the author to make lists of things they were grateful for, to note some of the thoughts shared by the author, to document their journey and be so able to remember meaningful things later on. In general, the combination of writing and photographing was considered particularly good since for some people the act of writing helps to focus and to process thoughts. Some of the participants even habitually use the writing technique, thus they preferred it to the camera.

Finally, the author asked participants which of the things they have experienced during the activity they believed is worth trying to apply in their daily life. Although each participant said something personal, the author found common points. Participants realized during the tour how challenging it is to live fully in the present moment as they noticed how their mind was going in the past and to the future repeatedly. Thus, one of the common points participants shared is the desire to try living more the present moment as one participant said, "no matter what happened yesterday or what is going to happen tomorrow, I want to enjoy the present moment fully."

The author was particularly glad to hear that some of the participants would try to apply further the practice of observing the forest more attentively, with open eyes, largely because of the thoughts shared by her during the tour. One participant drew a comparison with the curious attitude individuals have when they travel to a new place, and they see everything with "new eyes." Other participants would like to practice more acceptance of the present life situation and let go of the past as well as being more patient and try to embrace a slower pace in the daily routine.

In general, the results of the interviews were positive and gave the author many hints to further develop the experience. In the next chapter the author expresses her evaluation of the project, based on the criteria listed in chapter one and on the primary goals she set in the beginning of the thesis process. Moreover, the author comments on the key outcomes referring to the literature. Finally, she writes her conclusions and reflections about the whole experience and what she learned from it, as well as her wishes for the future implementation of the product.

6 Discussion

The results of both the self-report questionnaires and the semi-structured interviews are encouraging for the author was they suggested that the main objective of the thesis project is achieved and that the theories reviewed in the literature were somehow confirmed.

Participants were pleased both with the content of the experience and the author's accuracy and ability to guide the tour. Their perception of calmness and relaxation increased after participating in the activity. Participants actively engaged in mindfulness small practices such as being attentive to the present moment and own environment. The restorative and enchanting effect of the forest environment played a key role in the success of the experience designed by the author, validating the theories reviewed in the theoretical background. Finally, the author managed to boost positive emotions, such as gratitude, engaging participants with thoughts about living a more mindful life, as well as with fascinating facts about the forest as a nurturing, interdependent and complex ecosystem.

In the following subchapters, the author reflects on the comparison between the data collected from participants and the literature reviewed in the paper and her personal assumptions. Then, based on the results and on the feedback received from the participants, she draws her conclusions about the success of the project. Moreover, the project planning, execution, and evaluation phases are measured according to the criteria listed in chapter one. Finally, the author reflects on some limitations met and suggests few adjustments and further ideas for the future implementation of the product. The chapter also includes some personal learning outcomes.

6.1 Reflections on the outcomes of the project

The author's main objective for this thesis was to design and deliver an enjoyable, educational activity which would also increase the overall wellbeing of participants. The author predicted that the experience of Mindfulness Photography in Finnish Forests would boost a perceived sensation of relaxation and calmness, promote attentiveness to the present moment and own surroundings, better consciousness towards one's own emotions and thoughts and a sense of gratitude and appreciation of the beauty that surrounds people every day but that often goes unnoticed.

To design the experience of mindfulness photography in forests the author reviewed theories and empirical studies which demonstrate that nature is a restorative environment and thus, spending time in nature is a soothing experience. Furthermore, the author referred to theories according to which the active practice of mindfulness create a positive engagement in individuals and bring further beneficial effects to the restorative experience in nature. To evaluate the product, the author then collected data from all 9 participants, through self-report questionnaires, before and after the guided experience, and semi-structured interviews. Below are the author reflections after comparing the findings of the research to the literature in the paper.

As explored in chapter two, nature is considered a restorative environment which induces fascination and promotes effortless attention, helping to overcome mental fatigue and to restore direct attention, which is usually drained by the stressful stimuli of urban settings. This process leads to a state of relaxation and a general sense of well-being. According to the Attention Restoration Theory (ART) of Kaplan, fascination which is induced by the elements in nature, is an important condition in the process of restoring one's attention but needs to be supported by the three additional components of being away, having an extent and being compatible.

The forest environment enhanced the positive effects of the whole experience, supporting the theories in the reviewed literature. In the post activity questionnaire, participants measured an increased level of attraction and interest towards the elements of the surroundings and rated higher the sensation of being surrounded by a peaceful environment. From the interview's answers the author noticed a common sensation of "being away" which, according to ART, gives individuals the feeling of being far from the usual environment and the daily routines, and thus, frees them from intense mental activity. Although the Maunula nature trail is situated in the center of Helsinki and near to big roads, yet participants perceived a sense of being distant from the urban context and psychologically detached from their daily tasks and worries.

In general, participants thought that the forest was rich enough of elements that aroused curiosity and engaged them during the activity. This information is consistent with the concept of *extent* of the ART, according to which a restorative natural environment must be rich in stimuli that give individuals the feeling of being immersed. Nevertheless, the season and weather conditions were the biggest limitation for the outcome of the experience. All participants said that they would have spent more time and enjoyed the activity more if the weather had not been so cold, and the ground had not been covered in

snow. Also, some participants reported that in some areas, during the tour, they could still hear car noise and that prevented them from enjoying the sounds of birds, for instance.

Moreover, almost all participants considered the forest a familiar environment, in which they feel comfortable. The author sees a connection with the concept of compatibility, from the Attention Restoration Theory (ART), according to which nature has restorative effects as long as it supports individuals' purposes. In the interviews, participants said that normally they visit forests to relieve stress, clear thoughts, recharge, feel at peace and even to find inspiration for challenging tasks related to work. However, during the experience of mindfulness photography, the purpose was given by the author, as participants were asked to complete the 5 photographic tasks. Yet, for the success of the experience, it was important to choose an environment that allowed participants to carry on with the activity smoothly and without struggle. Thus, the author chose a forest without unexpected or threatening features and a path that was easy to walk. All participants positively reported being able to carry out the activity smoothly and without too much trouble, if not for the chilly weather. Moreover, for the author it was important to convey a feeling of security. For the participants who did not perceive the forest as a familiar environment it was comforting to feel the presence of the author guiding them through the tasks and checking the path.

The author combined the benefits of conducting the experience in a forest environment with the use of mindfulness photography, based on the theories that a more active participation would create positive engagement in participants and enhance the beneficial effects of the exposure to a restorative nature environment. The author also assumed that the activity of mindfulness photography would promote participants' awareness of their own surroundings and of the present moment, using the photo camera as a tool to observe details of the forest. Moreover, the designed photographic tasks enclosed in the handbook would promote participants' consciousness of their own thoughts and emotions.

Findings reveal that participants took part actively in the experience and showed curiosity and interest in the topics shared by the author. The practice of observing the forest through a lens led to an immersive state, and supported participants' focus on the present moment. According to participants' feedback, the tasks designed by the author were very well planned, easy to follow and helped them to stay focused during the activity and to reflect upon their life and the human connection to nature.

On the other hand, the author was not able to prove with the questionnaires the assumption that the designed tasks could increase participants' consciousness of their own thoughts and emotions. Indeed, developing the skills to approach feelings and emotions more consciously requires a consistent practice of the mindfulness method. However, during the interviews, participants shared very deep thoughts. Through the lens of their camera, they were able to meditate for instance, on their own relationship with the natural environment and on how the connection to nature helped them to get through challenging life experiences, or simply accompanied them in their childhood. These findings suggest that the author was able to encourage deep thinking. Moreover, in accordance with the literature, photographs helped participants to convey thoughts and emotions.

The connection between most of the participants and nature appeared strongly from both answers in the questionnaires and interviews. Participants expressed their wish to visit nature more often, as the experience guided by the author reminded them of the positive sensations they feel when being immersed in the forest environment. Since all of them live permanently in Finland, the author sees these statements as a support to the literature in chapter four, which remarks the strong connection between residents of Finland and forests, as well as the marketing strategy of promoting Finland as a well-being destination, in relation to the unpolluted and wild nature landscape.

One of the aims of the author was to promote appreciation for the beauty of nature. According to findings of the questionnaires, participants perceived the forest environment more beautiful than an urban setting, even though the author intentionally chose a regular urban forest of the Helsinki area, without outstanding views or attractive elements, like for instance lakes or hills. Furthermore, participants felt an increased positivity after participating in the experience, proving that the author managed to encourage positive feelings, particularly a sense of gratitude toward life.

Finally, the experience of Mindfulness Photography in Finnish Forests was created based on experience design theories acquired during the studies in Haaga-Helia. Particularly, the author followed the model of the Experience Pyramid (Tarssanen & Kylänen 2005). According to the results of the questionnaires and interviews, the author succeeded in engaging participants at all levels of the pyramid. Particularly, the *intellectual* level was reached as the author was able to intrigue participants with insightful thoughts shared during the activity. Participants reacted positively at an *emotional* level, since the experience was designed to boost positive feelings. The highest level, the *mental*, was

reached as participants acknowledged that the method of mindfulness photography in the forest boosted a relaxed and positive psychological state. Moreover, participants showed an interest in repeating the activity again, following the handbook designed by the author. This result suggested that the product of the thesis successfully stimulated participants' curiosity and interest toward a method which, if practiced on a regular basis, can lead to a personal transformation.

6.2 Project evaluation and ideas for further implementation

The author acknowledges the fact that her product was tested so far only with nine participants and thus, that the results cannot be generalized. However, she feels quite positive about the potential future implementation of the experience of mindfulness photography in forests, since she got valuable insight from the interviews and very positive feedback from the participants.

The author succeeded in achieving the main objective of the product, which was to deliver an enjoyable, educational, and relaxing activity that could increase the overall sensation of wellbeing for participants. In chapter one, the author also defined three criteria for evaluating the success of the whole project of this thesis. According to the first criteria of evaluation, the author completed the whole project within the predicted schedule, and in time for graduating before summer.

The second measure of success was to design the handbook and to successfully deliver the experience of mindfulness photography. The author guided the 9 tours already in late March, taking advantage of a period of unemployment, due to the COVID-19 situation. Moreover, the handbook of the experience was delivered by email to all participants, after the activity.

Finally, the third measure of evaluation was to assess the enjoyability of the guided experience and the positive benefits for the participants. The results of the self-report questionnaires and the semi-structured interviews proved that the experience of mindfulness photography conducted by the author is indeed a pleasant activity that promotes a connection with the natural environment, boosts positive feelings, such as gratitude towards one's own life, and enhances relaxation, giving participants a break from the busy routine as well as a sense of psychological distance from the stressful urban environment.

The author gained useful insights from the results of her research and made observations which will help her to plan an improved version of her product. The first remark examines the customer segments targeted by the author during the planning phase of her thesis project. The author intent is to offer in the future the guided experience of Mindfulness Photography in Finnish Forests to both international visitors and to individuals living in urban areas in Finland, who are looking for a break from their city hustle. However, because of the current COVID-19 situation and the absence of international tourists, the author was not able to recruit any participants travelling to Finland, as planned. Instead, she relied on her network of friends. Although participants had diverse backgrounds and nationalities, they all live in Finland. Thus, they are used to the local natural landscapes, as emerged from the collected data. Nevertheless, the author finds interesting the possibility to further test the experience with people who do not live in Finland and who might not be used to the typical Scandinavian natural environment. Furthermore, 90% of participants were female. This result might suggest that women tend to appreciate more a type of experience that involves reflecting on own emotions and thoughts and thus, that the experience should be marketed mainly to a female customer group. However, the author did not promote the product yet to the market but only counted on the willingness of her contacts. Hence the present research is not enough to draw a conclusion about this matter.

The opinions gathered among participants suggested that the type of forest environment and the weather conditions are relevant to the success of the experience. Thus, the author made some considerations for the future implementation of the product. At first, the author thought this could be an activity that could be easily done all year round. However, her opinion changed after this experience. The tours were carried out in late March and the beginning of April, when Keskuspuisto was still covered in snow and the temperatures were cool enough to feel some discomfort after being outside for more than two hours. Therefore, in the future the author will propose the tour only in late spring, summer, and autumn, when the forest is full of life and colors, and offers more chances to explore.

The author will also consider a natural area close to the sea or a lake since a few participants described their connection to the water element. For instance, a participant described the beach as a personal safe space. A second participant talked about not feeling too comfortable in wide spaces like forests but preferring the view of the ocean and sea. Other participants showed their attraction to the water element when describing the content of their photos. The author is not surprised at all by these results since much of the research reviewed proved that individuals particularly feel calm when admiring lakes or sea views. Furthermore, some participants noticed that in some parts of the trail, they

could still hear car noise coming from the big road, next to Keskuspuisto. Therefore, the author will look for a forest which is still within a short distance from Helsinki city and easily accessible, but further from big roads and road traffic.

Finally, participants gave some useful suggestions that the author will try to consider for further implementation. For instance, one of the participants with professional background in restaurants as chef, proposed to sell the experience to workers in the restaurant and hotel industry, since the type of work is usually demanding and a cause of stress. A second participant suggested that the author could include in the beginning of the activity a short meditation session or breathing exercises, so that participants can calm down and get into the activity more smoothly. One last interesting piece of advice is to introduce during the experience a task in which participants can record the sounds of nature.

6.3 Learning outcomes

The process of writing this thesis lasted several months. The consistent amount of literature to read and the scientific nature of the empirical studies reviewed in the paper were the most demanding part. However, the author was 100% committed to the topic of her research and never felt the urge to give up. The biggest challenge was to deal with time management because of the overlapping of duties as the author tends usually to overwhelm herself, making too many commitments. However, once again she was able to deal with everything and within the agreed schedule.

The greatest compensation was to see her project becoming reality. First, the design of the tasks and the handbook and, finally, in March the implementation of the tours. Organizing the tours was the most exciting part since the author always had a clear vocation in project management. However, planning the experience included some backup plans and last-minute changes. For instance, the original plan was to organize a couple of tours with 4 to 6 participants. Nonetheless, in March the COVID-19 situation was critical. The author decided so, to guide the experience privately or with a maximum of two participants. This meant more days outside and longer hours of work. However, the author really enjoyed the process of testing the idea over and over since it gave her the chance to observe how different people reacted.

Coordinating and supervising participants while walking through the forest was the most demanding duty for the author because of the sense of responsibility emphasized by the challenging conditions of the ground, which was icy and covered in snow. Furthermore,

not all participants felt confident about being in a forest, thus the author made sure multiple times to communicate info clearly and to make participants feel they were not left alone. For instance, the author kept an eye on participants, every time they were taking pictures on their own.

Moreover, the whole project execution phase required some good organizational skills, especially considering that the activity was carried out outdoor in the forest. For instance, monitoring the weather forecast before each tour and making sure that the trail was safe to walk. Also, the author had to supply and bring a few items. For instance, a thermos bottle with herbal tea, vegans, and gluten free snacks and disposable bio cups. The author made small paper notebooks and provided pens for participants, to report their thoughts and emotions. For filling in the questionnaires, the author brought a tablet with Wi-Fi connection and a smartphone to record interviews and stay connected with participants.

Concluding, this thesis project represents for the author an incredible learning experience and a great achievement. Not only because the Experience of Mindfulness Photography in Finnish Forests has the potential to become a real product for the tourism industry. Also, because the topics learned during the review of literature are extremely valuable for the author and they opened her mind to different possibilities for improving her personal life. For instance, practicing every day the method of mindfulness brought considerable improvements to the author's life. Spending time in nature has also proved to be a powerful habit to recharge batteries and restore the author's attention during the intense process of writing her thesis.

For the coming months, the author wishes to engage more people with her designed experience and to show how easily it could be done after a workday or during weekends, to recharge and soothe the mind. Although the author is aware that her product represents just an invitation to a more sustainable way of living and that real changes can only be achieved with perseverance and willpower, she would like to guide more free tours in the summer, to help friends and colleagues who have been negatively affected by the COVID-19 situation.

References

Ackerman, C.E. 2020. What is Kaplan's Attention Restoration Theory (ART)?. URL: https://positivepsychology.com/attention-restoration-theory/. Accessed: 6 february 2021

Alvarsson, J., Wiens, S. & Nilsson, M. 2010. Stress Recovery during Exposure to Nature Sound and Environmental Noise. International Journal of Environmental Research and Public Health, 7, 3, pp:1036-46

Annerstedt, M., Jönsson, P., Wallergård, M., Johansson, G., Karlson, B., Grahn, P., Hansen, A. M. & Währborg, P. 2013. Inducing physiological stress recovery with sounds of nature in a virtual reality forest. Results from a pilot study. Physiology & behavior, 118, pp: 240-250

Arvonen, S. & Aaltonen, A. 2014. Metsämieli: Luonnollinen menetelmä mielentaitoihin. Metsäkustannus, Helsinki.

Atchley, R. A., Strayer, D. L. & Atchley, P. 2012. Creativity in the Wild: Improving Creative Reasoning through Immersion in Natural Settings. PLoS ONE, 7,12, pp:1-3

Barton, J. & Pretty, J. 2010. What is the Best Dose of Nature and Green Exercise for Improving Mental Health? A Multi-Study Analysis. Environmental Science & Technology, 44, 10, pp: 3947-3955.

Basu, A., Duvall, J. & Kaplan, R. 2019. Attention Restoration Theory: Exploring the Role of Soft Fascination and Mental Bandwidth. Environment and Behavior, 51(9-10), pp: 1055-1081

Berman M.G., Jonides J. & Kaplan S. 2008. The Cognitive Benefits of Interacting With Nature. Psychological science, 19, 12 pp: 1207-1212

Björk, P., Tuohino, A. & Konu, H. 2011. Wellbeing Tourism in Finland - a Wide Perspective. Matkailututkimus 7, 2, pp: 26-41

Booth, R. 2017. Master of mindfulness, Jon Kabat-Zinn: 'People are losing their minds. That is what we need to wake up to'. The Guardian. URL: https://www.theguardian.com/lifeandstyle/2017/oct/22/mindfulness-jon-kabat-zinn-depression-trump-grenfell. Accessed: 17 February 2021

Brown, K.W. & Ryan, R.M. 2003. The benefits of being present: Mindfulness and its role in psychological well-being. Journal of Personality and Social Psychology, 84,4, pp: 822-848

Business Finland 2019. How Finland is saving the world from stress. URL: https://news.cision.com/business-finland/r/how-finland-is-saving-the-world-from-stress,c2780102. Accessed: 24 February 2021

Cervinka, R., Schwab, M. & Haluza, D. 2020. Investigating the Qualities of a Recreational Forest: Findings from the Cross-Sectional Hallerwald Case Study. International Journal of Environmental Research and Public Health, 17, 1676, pp. 2-13

Citynature.eu 2021. Keskuspuisto. URL:

https://citynature.eu/en/location/keskuspuisto/?section=services. Accessed: 7 April 2021

Clifford, M.A. 2018. Forest Therapy: Eight Steps to Begin. URL: Get Started with Forest Therapy - Starter Kit.pdf. Accessed: 17 February 2021

De Bloom, J., Sianoja, M., Korpela, K., Tuomisto, M., Lilja, A., Geurts, S. & Kinnunen, U. 2017. Effects of park walks and relaxation exercises during lunch breaks on recovery from job stress: Two randomized controlled trials. Journal of environmental psychology, 51, pp: 14-30

Donald, J. N., Atkins, P. W., Parker, P. D., Christie, A. M. & Ryan, R. M. 2016. Daily stress and the benefits of mindfulness: Examining the daily and longitudinal relations between present-moment awareness and stress responses. Journal of research in personality, 65(C), pp: 30-37

Duncan, M.J., Clarke, N.D., Birch, S.L., Tallis, J., Hankey, J., Bryant, E. & Eyre, E.L.J. 2014. The effect of green exercise on blood pressure, heart rate and mood state in primary school children. International Journal of Environmental Research and Public Health, 11, pp: 3678–3688.

Ekuo, M. 2015. How might contact with nature promote human health? Exploring promising mechanisms and a possible central pathway. Frontiers in psychology, 6, 1093, pp:1-8

European Environment Agency 2014. Noise in Europe 2014. Publication Office of the European Union. Luxembourg. URL: EEA 10-2014 Noise in Europe 2014.pdf. Accessed: 11 November 2020

Environmental European Agency 2019. Noise pollution in Europe. URL: https://www.eea.europa.eu/media/infographics/noise-pollution-in-europe-1/view. Accessed: 25 January 2021

Environmental European Agency 2020. Air pollution sources. URL: https://www.eea.europa.eu/themes/air/air-pollution-sources-1. Accessed: 25 January 2021

Environmental European Agency 2020. Air pollution: how it affects our health. URL: https://www.eea.europa.eu/themes/air/health-impacts-of-air-pollution. Accessed: 25 January 2021

European Environment Agency 2020. Freshwater - State and impacts (Finland). URL: https://www.eea.europa.eu/soer/2010/countries/fi/freshwater-state-and-impacts-finland-1#:~:text=Finland%20is%20rich%20in%20surface,area%20is%20covered%20by%20water. Accessed: 25 February 2021

Eurostat 2018. Over 40% of the EU covered with forests.URL: https://ec.europa.eu/eurostat/web/products-eurostat-news/-/EDN-20180321-1.Accessed: 26 February 2021

Finnish Meteorological Institute 2021. Air quality index.

URL:https://en.ilmatieteenlaitos.fi/air-quality-index. Accessed: 26 February 2021

Foley, L., Prins, R., Crawford, F., Humphreys, D., Mitchell, R., Sahiqvist, S., Thomson, H. & Ogilvie, D. 2017. Effects of living near an urban motorway on the wellbeing of local residents in deprived areas: Natural experimental study. PLoS ONE, 12, 4, pp: 1-16

Gaggioli, A. 2016. Transformative Experience Design. Human Computer Confluence Transforming Human Experience Through Symbiotic Technologies. De Gruyter, Berlin. URL: file://Gaggioli2016TransformativeExperienceDesign.pdf. Accessed: 5 march 2021

Golding, S. E., Gatersleben, B. & Cropley, M. 2018. An experimental exploration of the effects of exposure to images of nature on rumination. International Journal of Environmental Research and Public Health, 15, 300, pp: 1-19

Haapala, V. 2017. Metsänpeitto.URL:https://www2.helsinki.fi/fi/uutiset/kestava-kehitys/metsanpeitto. Accessed: 25 February 2021

Haavisto, P. 2016. Luke. Wellness from water. URL:https://www.luke.fi/en/wellness-from-water/. Accessed: 26 February 2021

Halicioglu, F. 2013. Dynamics of obesity in Finland. Journal of Economic Studies, 40,5, pp: 644-657

Hartig, T., Evans, G. W., Jamner, L. D., Davis, D. S., & Gärling, T. 2003. Tracking restoration in natural and urban field settings. Journal of Environmental Psychology, 23, pp: 109–123.

Hartig, T., Mang, M. & Evans, J.W. 1991. Restorative Effects of Natural Environment Experiences. Environment and behavior, 23, 1, pp: 3-26.

Helsinki Marketing 2020. Central Park - the central forest running the length of Helsinki. URL: https://www.myhelsinki.fi/en/see-and-do/nature/central-park-the-central-forest-running-the-length-of-helsinki. Accessed: 7 April 2021

Henkel, L. A. 2014. Point-and-Shoot Memories: The Influence of Taking Photos on Memory for a Museum Tour. Psychological science, 25, 2, pp: 396-402

Hente, E., Sears, R., Cotton, S., Pallerla, H., Siracusa, C., Filigno, S. S. & Boat, T. 2020. A Pilot Study of Mindfulness-Based Cognitive Therapy to Improve Well-Being for Health Professionals Providing Chronic Disease Care. The Journal of pediatrics, 224, pp: 87-93

Hjalager, A.M., Konu, H., Huijbens, E.H., Björk, P., Flagestad, A., Nordin, S. & Tuohino, A. 2011. Innovating and re-branding Nordic wellbeing tourism. Nordic Innovation Center, Oslo. URL: file://NordicWellbeingTourism_report.pdf. Accessed: 22 February 2021

Japan National Tourism Organization 2021. The Japanese practice of Shinrin-yoku, or forest bathing, is the simple and therapeutic act of spending time in a forest. URL: https://www.japan.travel/en/guide/forest-bathing/. Accessed: 1 February 2021

Jo H., Song C. & Miyazaki Y. 2019. Physiological benefits of viewing nature: A systematic review of indoor experiments. International Journal of Environmental Research and Public Health, 16, 4739, pp:1-23

Kabat- Zinn, J. 2004. Wherever You Go, There You Are: Mindfulness Meditation in Everyday Life. 10th anniversary edition. Hachette Books, NY

Kabat-Zinn, J. 2005. Full catastrophe living: Using the wisdom of your body and mind to face stress, pain, and illness. 15th anniversary edition. Delta Trade Paperback, Bantam Dell, NY

Kaikkonen, H., Virkkunen, V., Kajala, L., Erkkonen, J., Aarnio, M. & Korpelainen, R. 2014. Terveyttä ja hyvinvointia kansallispuistoista. Tutkimus kävijöiden kokemista vaikutuksista. Metsähallituksen luonnonsuojelujulkaisuja. URL: https://julkaisut.metsa.fi/assets/pdf/lp/Asarja/a208.pdf. Accessed: 2 April 2021

Kallunki, E. 2017. Studies prove that the forest is a great stress reliever: Lowers heart rate and reduces muscle tension. Yle Uutiset. Url: https://yle.fi/uutiset/3-9548399. Accessed: 6 february 2021

Kang, Y., & Kim, E. J. 2019. Differences of restorative effects while viewing urban landscapes and green landscapes. Sustainability, 1, 2129, pp: 1-19

Kaplan, S. 1987. Aesthetics, Affect, and Cognition: Environmental Preference from an Evolutionary Perspective. Environment and behavior, 19,1, pp:3-32

Kaplan, S. 1995. The Restorative Benefits of Nature: Toward an Integrative Framework. Journal of Environmental Psychology, 15, pp: 169-182

Kaplan, S. 2001. Meditation, Restoration, and the Management of Mental Fatigue. Environment and behavior, 33,4, pp: 480-506

Konu, H., Tuohino, A. & Komppula, R. 2010. Lake Wellness — a practical example of a new service development (NSD) concept in tourism industries. Journal of vacation marketing, 16, pp: 125-139

Konu, H., Tuohino, A. & Björk, P. 2011. Wellbeing tourism in Finland: Finland as a competitive wellbeing tourism destination. URL:

https://erepo.uef.fi/bitstream/handle/123456789/10714/urn_isbn_978-952-61-0585-7.pdf. Accessed: 5 April 2021

Konu, H. 2015. Developing a forest-based wellbeing tourism product together with customers – An ethnographic approach. Tourism management, 49, pp: 1-16.

Korpela, K., De Bloom, J., & Kinnunen, U. 2015. From restorative environments to restoration in work. Intelligent Buildings International, 7, pp: 1-16

Korstanje, M.E. 2012. Tourists, Tourism and the Good Life. International Journal of Contemporary Hospitality Management, 24,1, pp: 162-164

Kottler, J. 1998. Transformative travel. The Futurist, 32, 3, pp: 24-28

Kurtz, J.L. 2015. Seeing through New Eyes: an Experimental Investigation of the Benefits of Photography. Journal of Basic & Applied Sciences, 11, pp: 354-358

Lavrakas, P.J. 2008. Self-reported measures. Encyclopedia of survey research methods. Sage. URL: https://methods.sagepub.com/Reference/encyclopedia-of-survey-research-methods. Accessed: 13 March 2021

Lederbogen, F., Kirsch, P., Haddad, L., Streit, F., Tost, H., Schuch, P., Wust, S., Pruessner, J.C., Rietschel, M., Deuschle, M. & Lindenberg, A.M. 2011. City living and urban upbringing affect neural social stress processing in humans. Nature, 474, pp: 498-501

Lexico 2021. Definition of well-being. URL: https://www.lexico.com/definition/well_being. Accessed: 18 February 2021

Li Q., Kobayashi M., Wakayama Y., Inagaki H., Katsumata M., Hirata Y., Hirata K., Shimizu T., Kawada T., Park B.J., Ohira T., Kagawa T., Miyazaki Y. 2009. Effect of Phytoncide from Trees on Human Natural Killer Cell Function. International journal of immunopathology and pharmacology, 22, 4, pp: 951-959

Li, Q., Morimoto, K., Kobayashi, M., Inagaki, H., Katsumata, M., Hirata, Y., Hirata, K., Suzuki, H., Li, Y.J., Wakayama, Y., Kawada, T., Park, B.J., Ohira, T., Matsui, N., Kagawa, T., Miyazaki, Y., & Krensky, A.M. 2008. Visiting a forest, but not a city, increases human

natural killer activity and expression of anti-cancer proteins. International journal of immunopathology and pharmacology, 21, 1, pp:117-127

Li, Q., Morimoto, K., Kobayashi, M., Inagaki, H., Katsumata, M., Hirata, Y., Hirata, K., Shimizu, T., Li, Y.J., Wakayama, Y., Kawada, T., Ohira, T., Takayama, N., Kagawa, T., & Miyazaki, Y. 2008. A forest bathing trip increases human natural killer activity and expression of anti-cancer proteins in female subjects. Journal Of Biological Regulators And Homeostatic Agents, 22, 1, pp:45-55

Li, Q., Morimoto, K., Nakadai, A., Inagaki, H., Katsumata, M., Shimizu, T., Hirata, Y., Hirata, K., Suzuki, H., Miyazaki, Y., Kagawa, T., Koyama, Y., Ohira, T., Takayama, N., Krensky, A.M. & Kawada, T. 2007. Forest Bathing Enhances Human Natural Killer Activity and Expression of Anti-Cancer Proteins. International journal of immunopathology and pharmacology, 20, 2, pp: 3-8

Lin, Y.H., Tsai, C.C., Sullivan, W.C., Chang, P.J. & Chang, C.Y. 2014. Does awareness affect the restorative function and perception of street trees? Frontiers in Psychology, 5, 906, pp: 1-9

Linton, M., Dieppe, P. & Medina-Lara, A. 2016. Review of 99 self-report measures for assessing well-being in adults: Exploring dimensions of well-being and developments over time. Bmj Open, 6,7, pp:1-16

Louv, R. 2011. The Nature Principle. Algonquin Books of Chapel Hill. Chapel, Hill, North Carolina

Luberto, C.M., Goodman, J.H., Halvorson, B., Wang, A. & Haramati, A. 2020. Stress and Coping Among Health Professions Students During COVID-19: A Perspective on the Benefits of Mindfulness. Global Advances in Health and Medicine, 9, pp: 1-5

Luke 2015. Finland: The most heavily forested country in Europe.

URL:http://www.metla.fi/suomen-metsat/index-en.htm. Accessed: 26 February 2021

Luke 2016. Forests ownership. URL: https://www.luke.fi/en/natural-resources/forest/forest-resources-and-forest-planning/forest-ownership/. Accessed: 24 February 2021

Luke 2016. Recreational use of nature. URL: https://www.luke.fi/en/natural-resources/recreational-use-of-nature/ Accessed: 21 December 2020

Lymeus, F., Lundgren, T. & Hartig, T. 2017. Attentional Effort of Beginning Mindfulness Training Is Offset With Practice Directed Toward Images of Natural Scenery. Environment And Behavior, 49, 5, pp: 536-559

Lymeus, F., Lindberg, P. & Hartig, T. 2018. Building mindfulness bottom-up: Meditation in natural settings supports open monitoring and attention restoration. Consciousness and cognition, 59, pp: 40-56

Lymeus, F., Ahrling, M., Apelman, J., Florin, C., Nilsson, C., Vincenti, J., Zetterberg, A., Lindberg, P. & Hartig, T. 2020. Mindfulness-Based Restoration Skills Training (ReST) in a Natural Setting Compared to Conventional Mindfulness Training: Psychological Functioning After a Five-Week Course. Frontiers In Psychology, 11, 1560, pp:1-18

Marques, S. & Lima, M. L. 2011. Living in grey areas: Industrial activity and psychological health. Journal of environmental psychology, 31, 4, pp: 314-322

Metla 2008. IUFRO Task Force on Forests and Human Health (2007-2011). URL: http://www.metla.fi/tapahtumat/2007/iufro-tf-07/. Accessed: 30 January 2021

Nazarenko, Y., Pal, Devendra & Ariya, Parisa A. 2020. Air quality standards for the concentration of particulate matter 2.5, global descriptive analysis. Bulletin of the World Health Organization. URL: https://www.who.int/bulletin/volumes/99/2/19-245704/en/. Accessed: 4 May 2021

Nowak, D. J., Hirabayashi, S., Bodine, A. & Greenfield, E. 2014. Tree and forest effects on air quality and human health in the United States. Environmental pollution, 193, pp: 119-129

Ohe, Y., Ikei, H., Song, C. & Miyazaki, Y. 2017. Evaluating the relaxation effects of emerging forest-therapy tourism: A multidisciplinary approach. Tourism Management, 62, pp: 322-334

Olson, T., Hansen, M.M. & Vermeesch, A. 2020. Mindfulness and Shinrin-Yoku: Potential for Physiological and Psychological Interventions during Uncertain Times. International journal of Environmental Research and Public Health, 17, 9340, pp: 1-13

Orru, K., Orru, H., Maasikmets, M., Hendrikson, R. & Ainsaar, M. 2016. Well-being and environmental quality: Does pollution affect life satisfaction? Quality of Life Research, 25, 3, pp:699-705

Pantzar K. 2018. Finding Sisu. In Search of Courage, Strength and Happiness the Finnish Way. Hodder & Stoughton. Great Britain.

Park, B.J., Tsunetsugu, Y., Kasetani, T., Kagawa, T. & Miyazaki, Y. 2010. The physiological effects of Shinrin-yoku (taking in the forest atmosphere or forest bathing): evidence from field experiments in 24 forests across Japan. Environ Health Prev Med 15, pp: 18-26

Pasanen, T. P., Neuvonen, M. & Korpela, K. M. 2018. The Psychology of Recent Nature Visits: (How) Are Motives and Attentional Focus Related to Post-Visit Restorative Experiences, Creativity, and Emotional Well-Being? Environment and Behavior, 50, 8, pp: 913-944

Pasanen, T., Johnson, K., Lee, K. & Korpela, K. 2018. Can Nature Walks With Psychological Tasks Improve Mood, Self-Reported Restoration, and Sustained Attention? Results From Two Experimental Field Studies. Frontiers in psychology, 9, 2057, pp: 1-22

Pedneault, K.S. 2020. The Use of Self-Report Data in Psychology.

URL:https://www.verywellmind.com/definition-of-self-report-425267. Accessed: 13 March 2021

Peen, J., Schoevers, R., Beekman, A. & Dekker, J. 2010. The current status of urban-rural differences in psychiatric disorders. Acta Psychiatrica Scandinavica, 121, 2, pp. 84-93.

PEER 2012. A spatial assessment of ecosystem services in Europe: Methods, case studies and policy analysis - phase 2. URL: PEER_report_4_phase_2_fullversion. Accessed: 3 February 2021

Pine II, B.J. & Gilmore, J.H. 2013. The experience economy: past, present and future. Handbook on the Experience Economy, Edward Elgar, UK

Pine II, B.J. and Gilmore, J.H., 1998. Welcome to the Experience Economy. Harvard Business Review, pp: 98-105

Pun, V., Manjourides, J., Suh, H., Pun, V., Manjourides, J. & Suh, H. 2017. Association of Ambient Air Pollution with Depressive and Anxiety Symptoms in Older Adults: Results from the NSHAP Study. Environmental Health Perspectives, 125, 3, pp. 342-348

Qubein, R. 2021. Nature, Wellness, And Giving Back Are Trending For 2021 Travel. Forbes. URL: https://www.forbes.com/sites/ramseyqubein/2021/02/07/nature-wellness-and-giving-back-are-trending-for-2021-travel/?sh=71f4e4e0528d. Accessed: 22 February 2021

Rent a Finn 2019. URL: https://rentafinn.com/. Accessed: 5 April 2021

Robledo, M. A. & Batle, J. 2017. Transformational tourism as a hero's journey. Current Issues in Tourism, 20, 16, pp: 1736-1748

Ross, S. 2010. Transformative Travel: An Enjoyable Way to Foster Radical Change. ReVision A Journal of Consciousness and Transformation 32, 1, pp: 54-61

Rudd, M., Vohs, K. D. & Aaker, J. 2012. Awe Expands People's Perception of Time, Alters Decision Making, and Enhances Well-Being. Psychological science, 23,10, pp:1130-1136

Sahlin, E., Ahlborg, G., Tenenbaum, A. & Grahn, P. 2015. Using Nature-Based Rehabilitation to Restart a Stalled Process of Rehabilitation in Individuals with Stress-Related Mental Illness. International Journal of Environmental Research and Public Health, 12, 2, pp: 1928-1951

Schertz, K. E., Sachdeva, S., Kardan, O., Kotabe, H. P., Wolf, K. L. & Berman, M. G. 2018. A thought in the park: The influence of naturalness and low-level visual features on expressed thoughts. Cognition, 174, pp: 82-93

Schertz, K.E. & Berman, M.G. 2019. Understanding nature and its cognitive benefits. Current directions in psychological science: a journal of the American Psychological Society, 28,5, pp: 496-502

Seeler, S. and Schänzel, H.A. 2019. From the fluidity of the experience economy to transformative experiences as a catalyst for positive change: the future of experiential travel. Journal of Tourism Futures, 5, 2, pp: 111-113

Sievänen, T. & Neuvonen, M. 2010. Luonnon virkistyskäyttö 2010. Metlan työraportti. Metsäntutkimuslaitos. Vantaa. URL:

http://www.metla.fi/julkaisut/workingpapers/2011/mwp212.pdf. Accessed: 25 February 2021

Sihvonen, M. 2018. Luke. Nature-based tourism – global trend, local business and sustainable future? URL:https://www.luke.fi/en/nature-based-tourism-global-trend-local-business-and-sustainable-future/. Accessed: 22 February 2021

Site Minder 2021. Hotel trends: Prominence of wellness travel. URL: https://www.siteminder.com/r/hotel-trends-hotel-hospitality-industry/#hospitality-trends-prominence-of-wellness-travel. Accessed: 20 January 2021

Sitra 2020. Megatrend 2: The population is ageing and diversifying. URL: https://www.sitra.fi/en/articles/megatrend-2-the-population-is-ageing-and-diversifying/. Accessed: 21 December 2020

Skift 2018. The Rise of Transformative Travel. URL: The-Rise-of-Transformative-Travel.pdf. Accessed: 20 January 2021

Slow Finland 2017. Wellbeing from Finland's nature. Visit Finland. URL:Slow-News-Magazine_1_2017.pdf. Accessed: 24 February 2021

Smiley, N. & Harp, D. 2020. Finding Mindfulness in Nature. Simple Meditation Practices to Connect With the Natural World. Trigger. Newark.

Smith, M. & Diekmann, A. 2017. Tourism and wellbeing. Annals Of Tourism Research, 66, pp: 1-13

Song, C., Ikei, H. & Miyazaki, Y. 2018. Physiological effects of visual stimulation with forest imagery. International Journal of Environmental Research and Public Health,15, 213, pp:1-11

Song, C., Ikei, H., & Miyazaki, Y. 2016. Physiological effects of nature therapy: A review of the research in japan. International Journal of Environmental Research and Public Health, 13, 8, pp: 1-17

Stigsdotter, U. K., Ekholm, O., Schipperijn, J., Toftager, M., Kamper-Jørgensen, F. & Randrup, T. B. 2010. Health promoting outdoor environments. Associations between green space, and health, health-related quality of life and stress based on a Danish national representative survey. Scandinavian journal of public health, 38, 4, pp: 411-417

Suler, J. 2013. Conceptual Photography. In the 4th edition of Richard Zakia's Perception and Imaging. Focal Press (Elsevier), Oxford, pp:102-114

Suler, J. 2013. Mindfulness in Photography. In the 4th edition of Richard Zakia's Perception and Imaging. Focal Press (Elsevier), Oxford, pp: 277-281

Syke 2020. Updated urban-rural classification: Finland's degree of urbanisation currently at over 72 per cent. URL:https://www.syke.fi/en-

US/Current/Updated_urbanrural_classification_Finlan(57443). Accessed: 24 February 2021

Takayama, N., Korpela, K., Lee, J., Morikawa, T., Tsunetsugu, Y., Park, B.J., Qing, L., Tyrvainen, L., Miyazaki, Y. & Kagawa, T. 2014. Emotional, Restorative and Vitalizing Effects of Forest and Urban Environments at Four Sites in Japan. International Journal of Environmental Research and Public Health, 11, 7, pp: 7207-7230

Tarkiainen, E. 2019. Libera la tua natura selvaggia. Uno Editori, Torino

Tarssanen, S. & Kylänen, M. 2005. A Theoretical Model for Producing Experiences — a Touristic Perspective. Lapland Centre of Expertise for the Experience Industry. Rovaniemi, pp:134-154

TEM 2009. Finland. Land of islands and water. The Island Committee, Ministry of Employment and the Economy. URL: Suomi_Saarten_ja_vetten_maa_esite_englanti.pdf. Accessed: 25 February 2021

TEM 2021. Achieving more together. Sustainable growth and renewal in Finnish tourism: Finland's tourism strategy 2019-2028 and action plan 2019-2023. Ministry of Economic Affairs and Employment Publication. Helsinki. URL:

https://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/162136/TEM_2020_18.pdf.

Accessed: 24 February 2021

TEM 2021. Finnish tourism in numbers. URL: https://tem.fi/en/finnish-tourism-in-numbers. Accessed: 24 February 2021

TEM 2021. Roadmap for growth and renewal in Finnish tourism for 2015-2025. URL: https://tem.fi/en/roadmap-for-growth-and-renewal-in-finnish-tourism-in-2015-2025. Accessed: 24 February 2021

This is Finland 2021. Iconic finnish nature symbols stand out. URL: https://finland.fi/life-society/iconic-finnish-nature-symbols-stand-out/. Accessed: 25 February 2021

Timko Olson, E. R., Hansen, M. M. & Vermeesch, A. 2020. Mindfulness and Shinrin-Yoku: Potential for Physiological and Psychological Interventions during Uncertain Times. International Journal of Environmental Research and Public Health, 17, 9340, pp. 1-13

Tobler, A. & Herrmann, S. 2013. The Rough Guide to Mindfulness- The essential companion to personal growth. Rough Guides Ltd, 80 Strand, London

Tolle, E. 2004. The Power of Now: A Guide to Spiritual Enlightenment. Hodder Australia, Sydney.

Tourula, M. & Rautio, A. 2014. Terveyttä Luonnosta. Thule Instituutti Oulun yliopisto, Metsähallitus ja Oulun seutu. Oulu. URL: Terveyttä_luonnosta.pdf. Accessed: 03 February 2021

Turunen, A. 2018. Slow Finland. URL: https://slowfinland.fi/en/the-cleanest-air-in-the-world/. Accessed: 25 February 2021

Tyrväinen, L. 2001. Economic valuation of urban forest benefits in Finland. Journal of environmental management, 62,1, pp: 75-92

Ulrich R. S., Simons R. F., Losito B. D., Fiorito E., Miles M. A. & Zelson M., 1991. Stress recovery during exposure to natural and urban environments. Journal of Environmental Psychology, 11, pp: 201–230

Ulrich, R.S. 1979. Visual Landscapes and Psychological Well-Being. Landscape Research, 4,1, pp: 17-23

Ulrich, R.S. 1981. Natural versus urban scenes: Some Psychophysiological effects. Environment and Behavior, 13, 5, pp: 523-556

Ulrich, R.S. 1984. View through a Window May Influence Recovery from Surgery. Science, New Series, 224, 4647, pp: 420-421

Van den Berg, A. E., Koole, S.L., & van der Wulp, N.Y. 2003. Environmental preference and restoration: (How) they are related? Journal of Environmental Psychology, 23, pp: 135–146

Visit Finland 2020. Hyvinvointimatkailun tuotesuositukset 2020. URL:https://www.businessfinland.fi/4ab695/globalassets/julkaisut/visit-finland/tutkimukset/2020/hyvinvointimatkailun-tuotesuositukset-2020.pdf. Accessed: 1

Visit Finland 2020. Rent a Finn goes virtual. URL: https://rentafinn.com/en/. Accessed: 24 February 2021

Visit Finland 2021. Wellbeing in Finland. URL: https://www.visitfinland.com/wellbeing/. Accessed: 22 February 2021

Wang, X., Rodiek, S., Wu, C., Chen, Y. & Li, Y. 2016. Stress recovery and restorative effects of viewing different urban park scenes in Shanghai, China. Urban forestry & urban greening, 15, pp: 112-122

WHO 1997. Measuring Quality of Life. URL:

March 2021

https://www.who.int/mental_health/media/68.pdf. Accessed: 18 February 2021

WHO 2005. Air quality guidelines – global update 2005. URL:

https://www.who.int/airpollution/publications/aqg2005/en/#:~:text=WHO%20Air%20Quality %20Guidelines%20. Accessed: 26 February 2021

WHO 2013. Health Effects of Particulate Matter. URL:

https://www.euro.who.int/__data/assets/pdf_file/0006/189051/Health-effects-of-particulate-matter-final-Eng.pdf?ua. Accessed: 4 May 2021

WHO 2016. Ambient Air Pollution Database. URL:

WHO_AAP_database_May2016_v3web.xlsx. Accessed: 11 November 2020

WHO 2020. Urban health. URL: https://www.who.int/data/gho/data/themes/themedetails/GHO/urban-health. Accessed: 21 December 2020

WHO 2021. Noise. URL:https://www.euro.who.int/en/health-topics/environment-and-health/noise/noise. Accessed: 26 February 2021

WHO Europe 2021. Environment and health noise. Data and statistics. URL: https://www.euro.who.int/en/health-topics/environment-and-health/noise/data-and-statistics. Accessed: 25 January 2021

Williams, F. 2017. The Nature Fix: Why Nature Makes Us Happier, Healthier, and More Creative. W.W. Norton & Company. New York, London

Williams, J.M.G. & Kabat-Zinn, J. 2011. Mindfulness: diverse perspectives on its meaning, origins, and multiple applications at the intersection of science and dharma. Contemporary Buddhism, 12, 1, pp: 1-18

Wilms, L., & Oberfeld, D. 2018. Color and emotion: Effects of hue, saturation, and brightness. Psychological Research, 82, 5, pp: 896-914

Wohlleben, P. 2016. The hidden life of trees. Greystone Books, Vancouver

Zhang, Y., Kang, J. & Kang, J. 2017. Effects of Soundscape on the Environmental Restoration in Urban Natural Environments. Noise & Health, 19, 87, pp:65-72

Zimmermann, F. F., Burrell, B. & Jordan, J. 2018. The acceptability and potential benefits of mindfulness-based interventions in improving psychological well-being for adults with advanced cancer: A systematic review. Complementary therapies in clinical practice, 30, pp. 68-78

Appendices

Appendix 1. Handbook of the experience





WHY THIS PROJECT?

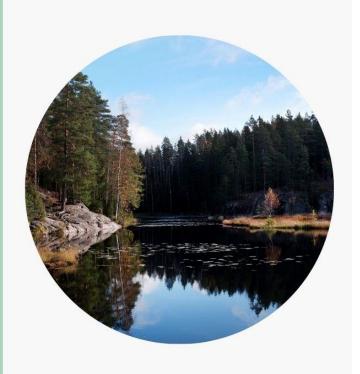
Modern life is filled with distractions and stimuli that continuously require all our attention, causing us mental fatigue and stress.

Our mind calls for a pause

Mindfulness photography is a simple method to grow self-awareness and gratitude and to increase attentiveness. It is an immersive experience that brings a feeling of calm and relaxation and boosts our mental well-being.

WHY FORESTS?

Nature is proved to be a restorative environment meaning that, when we spend time in nature, we feel refreshed and more relaxed. The elements of the forest capture our attention in a moderate way, creating a sense of fascination and so, allowing our mind to restore.



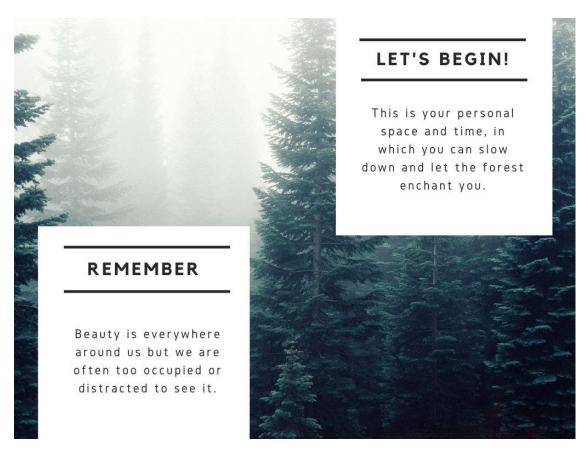
HOW DOES MINDFULNESS PHOTOGRAPHY WORK?

The camera is your anchor to the present moment. It invites you to become a conscious observant of the surrounding, of your thoughts and feelings.

Slow down and pause. Mindfulness photography requires an open mind. Do not look for the perfect image.

Instead, be curious and let the beauty of the forest inspire you.

Frame and capture the moment.
Increased consciousness about what
captures your attention or touches
your emotions will produce unique and
intimate images.



1.BECOME A CONSCIOUS OBSERVER

Walk around the forest with your eyes and mind open and be curious. Find inspiration in elements of nature that go usually unnoticed

© Cecilia Palombo



"The Japanese word Satori is used to describe a moment of no-mind and total presence. In order to become aware of the beauty of nature, your mind should be still. Forget for a moment your worries about the past, present, and future. Otherwise, you will not see for real. For instance, we might say:" what a beautiful flower" but that is only mechanical mental labeling. Without being present, you will not be able to see the real flower"

Tolle, E. 1999, 81

2.NOTHING LASTS FOREVER AND EVERYTHING CHANGES

Observing how nature renews itself daily, will help us to accept the mutability of our life condition



Cecilia Palombo



FOREST INSIGHT

Even when trees are dying they still serve the community of the forest. Their roots continue to pass nutrients to the young trees while the rotting trunk becomes home for many species of organisms, like insects or fungi.

We create our pain as the mind becomes attached to life conditions, like for instance a job position, a relationship or the physical body. But nothing in this life lasts forever and so your life conditions inevitably will change. Try to let go of the past experiences and the negative feelings you hold on to. Your life conditions do not define who you are. You are the only one responsible for your inner peace.

Tolle, E. 1999, 154

3.EVERYTHING IS CONNECTED

Nature teaches us to care, not just for ourselves, but also for other people.







FOREST INSIGHT

Forests are huge communities where all living organisms are interconnected. They are all dependent on each other for survival, even the tiniest one. Also, trees are connected to each other through their roots, so they can pass nutrients to their relatives or send warnings.

Mindfulness practice helps us to develop a better connection and a feeling of closeness with others. Mindful people are more emphatic. They are aware of their emotions and the resulting reactions. They also learn to perceive other people's feelings and to recognize how their own actions can affect others.

4.LEARN GRATITUDE

Noticing the beauty of nature and its elements, we train our minds not to get stuck in negative emotions, such as fear or anger but, rather appreciate what we have.



© Cecilia Palombo



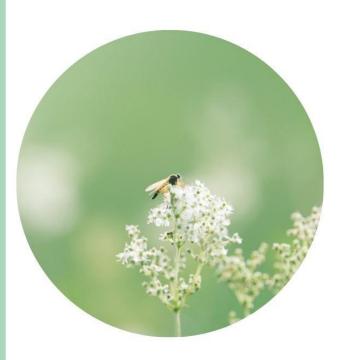
FOREST INSIGHT

If we depended on just the cloud mechanism of dropping water, life would be possible only in areas within about 600km from the sea. Trees release water vapor into the air, through the process of transpiration. This water vapor creates more clouds that travel further inland and release rain. Wohlleben, P. 2017,78

5. BRING THE SLOW PACE OF NATURE INTO YOUR LIFE

Observe the slow pace of nature and try to feel the sensation of peace and calm.

© Cecilia Palombo





Nature is patience. Young trees take an incredible amount of time to grow. The slower they grow the better chances they have to survive dangers and to get old. In fact, if the trunk grows tougher and more flexible, the tree is able to resist storms and prevent the spreading of unwanted fungi inside them. The mother tree knows this important condition and thus, it restricts to just 3% the amount of available sunlight passing the canopy and reaching the ground. In the meantime, the mother tree passes sugar and nutrients to young trees, through their root system.

(Wohlleben 2015, 31.)



NO STRIVING ATTITUDE TOWARD LIFE During the course of their long lives, trees are constantly exposed to dangers.

Diseases, injuries, heavy weather phenomena. However, trees are resilient. They adapt to changes and live for centuries. even after death, they still serve their purpose.

"THE PRESENT
MOMENT IS
ALL YOU
HAVE.
YOU ARE THE
ONLY ONE
RESPONSIBLE
FOR YOUR
INNER PEACE"

Eckhart Tolle



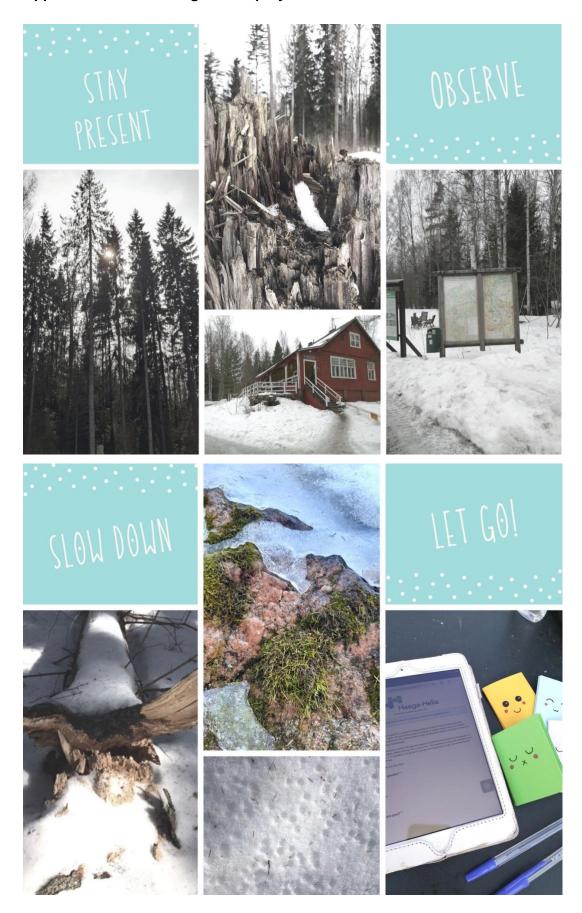


THANK YOU!

References:

Tolle, E. 1999. The power of now: A guide to spiritual enlightenment. Hodder, London Wohlleben, P. 2016. The hidden life of trees. Greystone Books, Vancouver

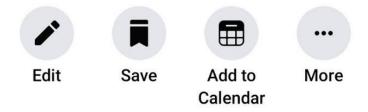
Appendix 2. Photo collage of the project



Appendix 3. Facebook invitation post to the experience



Metsäläntie 9, 00620 Helsinki, Suomi



Details:

Welcome to the experience of Mindfulness Photography in Finnish Forests!

This project has been designed for my bachelor thesis and the aim is to guide you through an enjoyable and relaxing experience.

Mindfulness photography does not require any photographic skill. Just bring a smartphone with a camera with you. The activity should last about 2, 5 hours. There will two questionnaires and an interview at the end. Both are anonymous.

Please, dress accordingly to the weather since the activity is carried outdoor. Please, contact me if you have questions. See you!

Appendix 4. Structure of the tours

		•	•
Schedule		•	•
GREETINGS		•	•
SELF-REPORT QUESTIONNAIRE. PRE-EXPERIENCE	10 MIN	•	•
INTRODUCTION	20 MIN	•	•
Objectives of the thesis projectWhy do we need nature?Why mindfulness photography?How does it work?		•	•
		•	•
TASK 1: DO WE REALLY SEE THINGS?	1,5 HOURS	•	•
TASK 2: ACCEPTANCE. NOTHING LASTS FOREVER IN LIFE		•	•
TASK 3: EVERYTHING IS CONNECTED		•	•
TASK 4: LEARN GRATITUDE BY OBSERVING THE FOREST		•	•
TASK 5: BRING THE SLOW PACE OF NATURE IN YOUR LIFE		•	•
SELF-REPORT QUESTIONNAIRE. POST-EXPERIENCE	10 MIN	•	•
BREAK WITH TEA AND SNACKS	10 MIN	•	•
SEMI-STRUCTURED INTERVIEW	30 MIN	•	•
QUESTIONS & ANSWERS		•	•
THANKING PARTICIPANTS & CLOSING		•	•
		•	•

Appendix 5. Perceived well-being questionnaire. Pre-experience

This questionnaire has been created by a student of Haaga-Helia University of Applied Sciences for the purpose of her Bachelor's Thesis. The goal of the project is to design a touristic experience of Mindfulness Photography in the Finnish forest environment. The author's wish is to be able to offer an enjoyable experience that will increase the overall perceived well-being of participants.

The first part contains few general questions while the second part aims to evaluate your perceived sense of well-being. Before starting answering, find a quiet place. Your answers are extremely valuable for the results of my project so, try to be as much accurate and honest as you can. Remember that the questionnaire is anonymous.

Thank you for your time and let's start!

What is your gender? *
Female
Male
Prefer not to say
Other:
How old are you? *
20-29
30-39
40-49
What is your nationality? *
How would you rate your current photographic skills? *
 I have no knowledge of photographic technique I have basic knowledge of the photographic technique I master the photographic technique
How would you rate your knowledge of the mindfulness method? *
Mindfulness is essentially our ability to be fully present, aware of where we are and what we are
doing. Everyone can develop a mindful mind. However, it requires a regular practice
☐ I've never read or heard about mindfulness

 I've read or heard about mindfulness but never practiced I had the chance to practice mindfulness once or more than once I practice mindfulness on a regular basis
How would you rate your familiarity with the forest environment? *
 I never visit forests I visit forests from time to time I visit forests once a week I visit forests more than once a week
How would you rate your compatibility with the forest environment? *
 □ I do not feel comfortable in a forest □ I feel a bit comfortable in a forest □ I feel rather comfortable in a forest □ I feel very much comfortable in a forest
Self-measured perception of well-being
Please, take your time to think about ONE specific moment within the past few hours.
Describe the type of activity/task you were performing and the type of environment. Try to
recall, with the help of the questions, your emotional state and your connection with the
environment.
Please, describe the activity you were completing *
In which place you were located? *
I was feeling calm *
0= not at all
10= very much
I was rushing through my tasks *
0= not at all
10= very much
To= very much
I was surrounded by a peaceful environment *
0= not at all
10= very much
I was in a place in which I felt distant from the usual routine *
0= not at all

```
10= very much
My attention was captured by interesting things of the surrounding *
0= not at all
10= very much
I was paying attention to the surrounding (sounds, details, smell..)
0= not at all
10= very much
I felt engaged in what I was doing *
0= not at all
10= very much
I was able to focus completely on my activity *
0= not at all
10= very much
I was distracted by my thoughts *
0= not at all
10= very much
I was aware of different thoughts passing through my mind *
0= not at all
10= very much
I noticed emotions come and go *
0= not at all
10= very much
I was aware of the different emotions that occurred *
0= not at all
10= very much
I sensed the beauty all around me *
0= not at all
```

10= very much

- I experienced the following emotions *
- 1 serenity
- 2 gratitude
- 3 hope
- 4 kindness
- 5 confidence
- 6 enthusiasm
- 7 enjoyment
- 8 anxiety
- 9 resentment
- 10 discouragment
- 11 fear
- 12 apathy
- 13 Ioneliness
- 14 melancholy
- 15 other

Appendix 6: Perceived well-being questionnaire. Post experience

This questionnaire has been created by a student of Haaga-Helia University of Applied Sciences for the purpose of her Bachelor's Thesis. The goal of the project is to design a touristic experience of Mindfulness Photography in the Finnish forest environment. The author's wish is to be able to offer an enjoyable experience that will increase the overall perceived well-being of participants.

The first part contains few general questions while the second part aims to evaluate your perceived sense of well-being. Before starting answering, find a quiet place. Your answers are extremely valuable for the results of my project so, try to be as much accurate and honest as you can. Remember that the questionnaire is anonymous.

Thank you for your time and let's start!

What is your gender? *

Female

Male

Prefer not to say

Other:

How old are you? *

20-29

30-39

40-49

What is your nationality? *

Self-measured perception of well-being

Please, take your time to think about the activity you just participated in. Try to recall, with the help of the questions, your emotional state and your connection with the environment.

I was feeling calm *

0= not at all

10= very much

I was rushing through my tasks *

```
0= not at all
10= very much
I was surrounded by a peaceful environment *
0= not at all
10= very much
I was in a place in which I felt distant from the usual routine *
0= not at all
10= very much
My attention was captured by interesting things of the surrounding *
0= not at all
10= very much
I was paying attention to the surrounding (sounds, details, smell..)
0= not at all
10= very much
I felt engaged in what I was doing *
0= not at all
10= very much
I was able to focus completely on my activity *
0= not at all
10= very much
I was distracted by my thoughts *
0= not at all
10= very much
I was aware of different thoughts passing through my mind *
0= not at all
10= very much
I noticed emotions come and go *
```

0= not at all

10= very much

I was aware of the different emotions that occurred *

0= not at all

10= very much

I sensed the beauty all around me *

0= not at all

10= very much

I experienced the following emotions *

- 1 serenity
- 2 gratitude
- 3 hope
- 4 kindness
- 5 confidence
- 6 enthusiasm
- 7 enjoyment
- 8 anxiety
- 9 resentment
- 10 discouragment
- 11 fear
- 12 apathy
- 13 loneliness
- 14 melancholy
- 15 other

Appendix 7: Semi structured interview

- 1. What are your sensations or thoughts about this experience?
- 2. What were your expectations about this experience?
- 3. How did you feel about being guided through the tasks?
- 4. How did you feel about timing?
- 5. What is that you enjoyed particularly during the activity?
- 6. How did you find the forest environment?
- 7. How did you feel about the practice of writing down your thoughts?
- 8. What was your experience related to the process of observing the environment carefully?
- 9. What was your experience related to the "slowing down" concept?
- 10. What would you change or improve about the experience?
- 11. Would you recommend this experience to others?
- 12. Which of the things you experienced in this activity, you would like to bring into your daily life?