## **SUMMARY**

AMBIENCE TV is a therapeutic-focused channel with relaxing nature content. This whitepaper's purpose is to explain the benefits of watching AMBIENCE TV. The sections called "Summary" and "Why Is It Needed?" are meant to briefly present the core ideas of this project in a coherent manner before delving into the fine details. Each statement is addressed in detail in the "Medical Research" section.

One of the first questions related to video content of this type is most likely: "There are plenty of nature videos, TV channels with drone footage, and 8-hour looped videos on YouTube. How is this one different?" The answer is simple and surprising: there aren't many. Those who exist are made to be pretty. They often have music, which while nice and calming few people can listen to the same repeating tracks for more than 20-30 minutes. Instead of using music, which must be licensed for broadcasting, AMBIENCE TV utilizes the music of the natural world. The same goes for the video content: it also needs to be licensed for broadcast, which adds a lot to the bottom line. This is why 100% of AMBIENCE TV's footage is filmed and prepared in-house; 100% of our audio is recorded and prepared in-house.

However, the available video content on the Internet channels simply helps you sleep better but that is where their helpfulness ends. Why stop at that? The content in AMBIENCE TV is specifically filmed and prepared with medical science and research as its backbone. Reduced blood pressure, better focus, measurably improved performance, recovery from stress and fatigue are some of the proven effects which nature has on your body, mind, and even soul, if you will. These aren't empty words, snake oils, and promises which can't be kept. **What** summarizes the ideology behind AMBIENCE TV? **How** and **Why** is watching AMBIENCE TV videos useful? These are the core questions which the whitepaper goes though. The section called "How Nature Helps Our Health" presents a more detailed explanation about the favorable impact of watching AMBIENCE TV.

# WHY IS IT NEEDED?

A lot of people stay at home and don't have the time or the opportunity to go out in nature, a lot of people are too busy, or live in urban areas where nature is effectively inaccessible due to the time it would take to get to it. It is understandable. We have lives which we have to attend to, and priorities which we can't ignore. Our team has gone through a lot of research papers on experiencing nature through modern technology and we were pleased to find that there are mountains of evidence that this works better than expected in a variety of ways.

In 1992 the World Federation for Mental Health declared that October 10th is the World Mental Health Day. There is still an amazingly large group of people who aren't even aware of the dangers of emotional and mental exhaustion. As a civilization, we don't spend as much

attention on our mental health as we should and recent studies in the UK have uncovered a worrisome trend of people seeking less help related to their mental health<sup>1</sup>.

In our fast-paced world of incessant hurrying our attention is constantly divided. In his book, "In Praise of Slowness: Challenging the Cult of Speed", Carl Honoré describes how as a society, and as individuals, the love of speed, the need to get more and more done in less and less time have gone too far. Our focus on speed and efficiency has become addictive. We've forgotten what it feels like to just look forward to something, we've forgotten how to enjoy the moment when it arrives.

There are pandemics which people aren't talking about such as the cancer pandemic. Overall, the burden of cancer incidence and mortality is rapidly growing worldwide; this reflects both on aging and growth of the population as well as changes in the prevalence and distribution of the main risk factors for cancer, several of which are associated with socioeconomic development<sup>2,3,4</sup>. In the US, 1 in 2 women and 1 in 3 men will develop cancer in their lifetime. A similar rate has been reported in the UK, with a new study published in the British Journal of Cancer claiming 1 in 2 men and women will be diagnosed with the disease at some point in their lives<sup>5</sup>. Every 3 seconds, someone in the world develops dementia<sup>6</sup>. Autoimmune diseases are skyrocketing<sup>7</sup>. On top of it all, there is a burn-out pandemic<sup>8</sup>. All these are stress-based problems.

Psychologists, doctors, and experts advise that we switch from the "doing mode", which is the sympathetic nervous system where we're high on glucose, high adrenaline, cortisol, and so forth, and switch to the parasympathetic nervous system, where we can relax and let our body repair and heal. Usually this happens during sleep, but we can also do it during the day by experiencing nature. Dr. Herbert Benson from Harvard had over 30 years of research on the relaxation response of the body that activates the parasympathetic mode. Watching nature on modern media can trigger the relaxation response with its emphasis on being centered, calm, connected, and present.

Our mission in AMBIENCE TV is to help people and provide an easy way to take care of your mental health. As a civilization, we have inferred that nature is good for us and science backs up this claim. The combined results of research conducted by scientists from Japan, Italy, England, the USA, and many other countries are conclusive that simply looking at nature can change and improve our negative emotions, such as stress and anxiety, and it can improve our mood significantly. Perhaps the most surprising conclusion of these research papers is that we don't need to spend hours in nature to get the beneficial effects. Having a natural ambience around us makes it easy to turn our attention to nature's beauty and rest our thoughts for a short while before continuing with our tasks.

All of this is backed up by our own history. Rich and poor alike had house plants in our homes and had gardens which also included decorative plants. In the modern day many offices also

<sup>1</sup> https://pubmed.ncbi.nlm.nih.gov/33444560/

https://acsjournals.onlinelibrary.wiley.com/doi/10.3322/caac.21660

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2690264/ https://www.demographic-research.org/volumes/vol7/5/

https://www.medicalnewstoday.com/articles/288916

https://www.brightfocus.org/alzheimers/article/alzheimers-disease-facts-figures

include natural greenery. Those aren't things which earn us money or save us time. Often, it's the opposite, and yet we have nature in our organized modern world. In the past the rich and powerful paid artists to bring breathtaking landscapes to their castles, mansions, and estates. Now we go to museums to see those very same paintings. Nature is in fact so impactful that merely looking at photos of natural sceneries helps our minds deal with depression, stress, burnouts, and a myriad of other issues. This effect is amplified when the paintings or photos are video. Seeing nature in motion on the TV is the next logical step in bringing us closer to the outside world and helping us relax in our busy everyday life. Carefully recorded natural sounds from forests and rivers further enhance the effects of the videos and bring us significantly closer to being out in nature.

Most TV shows, nature-focused channels, and documentaries about nature guide the viewer through a predetermined route, narrate and show an engaging story. This is great as far as documentaries are concerned. This, however, is not a good way to help you relax or to regain your focus.

### MEDICAL RESEARCH

Before we have a closer look at why nature is good let's start by defining some of the issues which nature helps resolve.

Burnouts, also sometimes referred to as "overworking":

A reaction to prolonged or chronic job stress and is characterized by three main dimensions: exhaustion, cynicism (less identification with the job), and feelings of reduced professional ability.

The American Psychological Association has defined burnout as an official mental illness<sup>9</sup>. Burnouts are especially common among young people, who are pressured to outperform and to get outstanding jobs as soon as they graduate. Burnouts are also common among older people, who are pressured to do better in our "modern and fast-paced world". We work harder than before, but after only a few years, the burnout induced stress takes its toll.

Depression is more than just sadness. People with depression may experience a lack of interest and pleasure in daily activities, significant weight loss or gain, insomnia or excessive sleeping, lack of energy, inability to concentrate, feelings of worthlessness or excessive guilt and recurrent thoughts of death or suicide<sup>10</sup>.

OK, so how does nature help? There are umbrella reviews of the benefits of nature. One such review <sup>11</sup> concludes that nature is good for treating an array of mental issues and disorders:

"...the exposure to the natural environment was associated with improvements in depressive symptoms, anxiety, mood disorders, stress, cognitive and emotional functions, affect, happiness, and overall mental wellbeing."

https://www.apa.org/monitor/2018/02/ce-corner

https://www.apa.org/topics/depression

https://psyarxiv.com/4r3mh/

Other papers delve into the specifics and conclude that nature and exposure to nature is a viable cost-effective healthcare intervention for people with mild to moderate healthcare problems<sup>12</sup>. Various cultures know about nature's effects on us, evidenced by the fact that we have had gardens for centuries, have cultivated flowers (and still do), and center a lot of elements of our traditional culture around the natural world. The importance of nature in the modern world is further exemplified by the fact that each country has its own national flower.

The National Library of Medicine, located in the USA, and the Japanese College of Cardiology<sup>13</sup> conducted a closely monitored experiment in which they put two groups of patients in two different environments: one urban and one forest. The results they discovered are the following:

...patients exposed to the forest environment showed a significant reduction in blood pressure in comparison to that of the city group. The values for the bioindicators in subjects exposed to the forest environment were also lower than those in the urban control group and the baseline levels of themselves."

Another study, conducted by Rita Berto<sup>14</sup> (University of Padua, Italy), concludes that:

uparticipants were first mentally fatigued by performing a sustained attention... test; then they viewed photographs of restorative environments, nonrestorative environments or geometrical patterns; and finally they performed the sustained attention test again. Only participants exposed to the restorative environments improved their performance on the final attention test, and this improvement occurred whether they viewed the scenes in the standardized time condition or in the self-paced time condition."

Or in other words, merely looking at still images from nature has a restorative effect on our attention and allows us to have more energy in our lives. If still images can have such a measurable impact on us, then how much better would video footage with sound be? Rita Berto's research has been confirmed by another study<sup>15</sup>, which also had people look at sets of images. Two of the sets consisted of nature photographs and of green pieces of paper.

Stephen Kaplan, a professor of psychology at the University of Michigan, specializing in environmental psychology, released a study 16 which was one of the first to prove that natural environments have restorative effects:

"Attention Restoration Theory provides an analysis of the kinds of experiences that lead to recovery from such fatigue. Natural environments turn out to be particularly rich in the characteristics necessary for restorative experiences. An integrative framework is proposed that places both directed attention and stress in the larger context of human-environment relationships."

In short: we have two kinds of attention: involuntary, which is grabbed by whatever is most important currently for our survival, and directed attention, which we use voluntarily to interact with the world. When we are in the city our involuntary attention is being pulled in all directions: there are people we might bump into, traffic lights to pay attention to, car horns and sirens,

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8582680/

https://pubmed.ncbi.nlm.nih.gov/22948092/

https://www.sciencedirect.com/science/article/abs/pii/S0272494405000381

https://www.sciencedirect.com/science/article/abs/pii/S0013935122009707 https://www.sciencedirect.com/science/article/abs/pii/0272494495900012

buses which we might be trying to catch, with number plates which we must read, motorcycles, dogs, rain or snow, puddles we don't want to step in, our phones. Dealing with this is exhausting but is the nature of the world we live in.

The natural world is much more relaxed and is less demanding on our senses. There are things which draw our attention but they do not overwhelm us. They are enough to keep us engaged but do not force us to have to decide what's most immediate. Simply gazing at a flower, at a river, at the rain, or at a majestic tree gives our directed attention a rest and we can let our minds wander. We have been decorating our homes with paintings of mountains and forests, sunsets and rivers, seas and oceans for centuries. AMBIENCE TV gives the same aesthetics and then enhances them more by turning the paintings into vibrant living windows which open up to reveal forests, oceans, mountains, rivers, valleys, plains, and many more. The experience is enhanced with real all-natural sounds recorded in forests, near rivers, and in gardens.

Nature does not just help us with blood pressure and relaxation. A study conducted in 2012<sup>17</sup> expanded the list of items by adding that nature helps us deal with depression, which is something every person has to deal with at a point of their life:

"These findings extend earlier work demonstrating the cognitive and affective benefits of interacting with nature to individuals with MDD [major depressive disorder]. Therefore, interacting with nature may be useful clinically as a supplement to existing treatments for MDD."

Japan is known for many things, one of which is their attention to gardens and beauty. Japan is one of the few countries, which not only discovered that nature helps us manage stress but went a step further and integrated this knowledge in their culture.

Another study, conducted by researchers from the University of Exeter <sup>18</sup>, shows that experiencing nature on TV can increase people's connection to nature and create positive emotions. The results indicate that this can reduce negative emotions like sadness and feelings of boredom as well as increase positive emotions such as happiness and a feeling of connection to nature.

With people around the world facing limited access to outdoor environments because of their busy job schedule or urban lifestyle this study suggests that nature content delivered through digital media might offer an accessible way for populations to benefit from a 'dose' of digital nature.

Dr. Mathew White, one of the authors of the study said:

"Virtual reality could help us to boost the wellbeing of people who can't readily access the natural world, such as those in hospital or-in long term care. But it might also help to encourage a deeper connection to nature in healthy populations, a mechanism which can foster more pro-environmental behaviors and prompt people to protect and preserve nature in the real world."

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3393816/

https://news-archive.exeter.ac.uk/2020/october/title\_821333\_en.html

### THE EFFECTS OF NATURE CONTENT ON PEOPLE

A large body of research is documenting the positive impacts of nature on human flourishing – our social, psychological, and emotional life. Over 100 studies have shown that being in nature, living near nature (especially scenic places<sup>19</sup>), or even viewing nature in paintings and videos can have positive impacts on our brains, bodies, feelings, thought processes, and social interactions. In particular, viewing nature seems to be inherently rewarding, producing a cascade of positive emotions and calming our nervous systems. These in turn help us to cultivate greater openness, creativity, connection, generosity, and resilience.

Research conducted by Kristophe Green and Dacher Keltner from University of California, Berkeley discovered all the different ways that nature benefits our well-being, health, and relationships<sup>20</sup>. According to their research, participants who viewed a few minutes of "Planet Earth" felt 46% more awe and 31% more gratitude than those in the other groups, such as a group who viewed funny and entertaining videos. This study and others like it tell us that even brief nature videos are a powerful way to feel awe, wonder, gratitude, and reverence—all positive emotions known to lead to increased well-being and physical health.

Viewing nature through images and videos seems to shift our sense of self, diminishing the boundaries between self and others, which has implications for social interactions. Participants who spent a minute looking up into a beautiful stand of eucalyptus trees reported feeling less entitled and self-important. Even simply viewing "Planet Earth" for five minutes led participants to report a greater sense that their concerns were insignificant and that they themselves were part of something larger compared with groups who had watched neutral or funny clips.

Positive emotions have beneficial effects upon social processes, too–like increasing trust, cooperation, and closeness with others. Since viewing nature appears to trigger positive emotions, it follows that nature likely has favorable effects on our social well-being.

All of these findings raise the intriguing possibility that, by increasing positive emotions, experiencing nature even in brief doses leads to more kind and altruistic behavior. In other words, science suggests we may seek out nature not only for our physical survival, but because it's good for our social and personal well-being.

#### **HOW NATURE HELPS OUR HEALTH**

Besides boosting happiness, positive emotion, and kindness, exposure to nature may also have physical and mental health benefits, as Kristophe Green and Dacher Keltner write in their research.

The benefits of nature on health and well-being have been well-documented in different European and Asian cultures. In the book "The Nature Fix: Why Nature Makes Us Happier,

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https://www.nature.com/articles/srep16899/

Healthier, and More Creative" Florence Williams<sup>21</sup> investigates connections between the brain and nature. The health and wellness benefits of immersion in nature seem to generalize across all different class and ethnic backgrounds.

Why is nature so healing? The simple answer is that having access to nature (either by living near it or viewing it) reduces stress. In a study by Catharine Ward Thompson<sup>22</sup>, a Professor of Landscape Architecture in University of Edinburg and her colleagues, the people who lived near larger areas of green space reported less stress and showed greater declines in cortisol levels over the course of the day.

In another study<sup>23</sup>, participants who viewed a one-minute video of awesome nature rather than a video that made them feel happy, reported feeling as though they had enough time "to get things done" and did not feel that "their lives were slipping away". People who report feeling a good deal of awe and wonder and an awareness of the natural beauty around them show lower levels of a biomarker<sup>24</sup> (IL-6) that could lead to a decreased likelihood of cardiovascular disease, depression, and autoimmune disease.

In her book, "Health Effects of Viewing Landscapes - Landscape Types in Environmental Psychology" 25, Mari Sundli Tveit from Norwegian University of Life Sciences, describes that looking at different kinds of nature (natural landscapes during a walk, views from a window, pictures and videos, and flora and fauna around residential or work environments) showed that such experiences led to reduced stress, easier recovery from illness, better physical well-being in elderly people, and behavioral changes that improve mood and general well-being.

## **HOW IMPACTFUL ARE THE VIDEOS?**

The team has already produced thousands of videos and has prepared hours of uninterrupted natural sounds. Perhaps you're now thinking of documentaries, such as the previously mentioned "Planet Earth", which are truly touching with animals and beautiful masterful shots of forests, waterfalls, and jungles. While these are impressive, they are narrated, there's music, and there are specific techniques of shooting which create a visual effect which makes it more interesting, but it also distances us from nature. Or maybe you're thinking of the various livestreams from exotic locations with someone guiding you left and right. Both these examples are, ironically, more stressful compared to looking at nature at your own pace because the shots change rapidly. there's often a lot of movement which blurs the world and makes you dizzy with motion sickness, or there is a subject which we should keep our focus on (like a deer or a lioness prowling in the grass). The therapeutic effect is lost when we don't have the time to look and appreciate the scenery. AMBIENCE TV deals with this by showing you natural settings, accompanied by natural sounds, without any narration or any rush to move to the next thing. There's plenty of time for

https://www.amazon.com/Nature-Fix-Happier-Healthier-

Creative/dp/0393242714/ref=sr\_1\_1?ie=UTF8&qid=1488235575&sr=8-1&keywords=the+nature+fix

https://www.sciencedirect.com/science/article/pii/S0169204611003665

https://www.bauer.uh.edu/mrrudd/download/AweExpandsTimeAvailability.pdf

https://greatergood.berkelev.edu/article/item/awe\_boosts\_health https://www.sciencedirect.com/science/article/abs/pii/S1618866707000416

you to notice hundreds of minute details and you won't end up wondering when the next scene will appear.

What's important to say here is that we know that it works and after significant additional research and feedback from early adopters we have developed a specialized technique for filming nature in the most relaxing and calming way possible.

In a world of chronic stress and constant distractions, we can heal our scattered brains by focusing on something wholesome like nature. Observing nature can slow our rushing minds down and can have the impact of meditation, especially when done for at least several minutes in the tradition of mindful attention with presence and focus on what's here and now. In particular, the benefits come from switching from "doing mode" to "being mode". The former is associated with the sympathetic nervous system which represents the "fight or flight mode", and the latter is associated with the parasympathetic nervous system, also known as "rest-digest-repair mode". Psychologists and doctors have been warning that constantly functioning in "doing mode" can create chronic stress and can damage our health and well-being.

Further, watching AMBIENCE TV can potentially activate the care system that all mammals have. When we care about others or enjoy beautiful natural views, our body releases happy hormones such as oxytocin and endorphins<sup>26,27</sup> along with over 1000 healthy biochemicals in the body. Also, we have the capacity to vicariously experience care when we are watching animals or other people. For example, we can 'feel' the comfort of touch by seeing it on TV, with humans and animals.

Psychologists have long determined that the feeling of belonging, and connectedness is a fundamental human need that is the basis of a happy and healthy life. Considering the modern fragmentation of family and community, this need has been largely neglected.

Observing nature can increase our sense of connection and belonging, especially if we mindfully focus on being part of a wider web of being, where everything is connected. We can remind ourselves that every breath we take is mirrored by a plant which exhaled the oxygen we inhaled.

Furthermore, psychologists have found that we have a tendency to focus on ourselves (I, me, myself, mine) in an attempt to boost our sense of safety and security. This can trigger the stress response of the body. In addition, it activates a part of the brain called the Default mode network. When this network is active, the rest of the brain centers do not communicate effectively, or in other words, our brain functioning is suppressed. New research suggests that when we have an outward focus on others or on nature, the brain functions much more effectively and that corresponds to an enhanced sense of well-being and better communication with others.

https://www.takingcharge.csh.umn.edu/how-does-nature-impact-our-wellbeing

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https://www.henryford.com/blog/2021/05/how-to-boost-feel-good-hormones-naturally

# **CONCLUSION**

Dealing with stress, overwork, irritation, noise, sadness, or the feeling of dread is a difficult task, but it is one which can be made significantly easier if we change our approach. Sometimes all it takes is to spend a few minutes to enjoy nature in its splendor. While it is in no means a substitute to professional help, it is for sure a great tool to aid said professional help. Getting in touch with that which is beautiful is one of these ways and it has never been easier. AMBIENCE TV brings nature and its sceneries, sounds, and harmonies to you. These harmonies are present not only in its grand landscapes, looming cliffs, splashing waves, and endless forests, but also in the small things: rain drops, individual flowers, tiny ripples in a lake, sparkles in a rivulet, a waving leaf with an ant on it.

We are a part of the natural world and as a result, we need the natural world. Living far away from it, shut inside our homes and offices, deepens the divide which damages our health and impacts our well-being. Without nature we feel lessened, and the world becomes a darker place. We created AMBIENCE TV to bridge this divide. To allow you to rediscover these minute details, to allow them to soothe your mind and take your thoughts away from the everyday issues we must endure. The content we produce is not guided by the camera. It is guided by you.

We give you the freedom to focus on whichever elements in our library of currently 4000+ videos. You can choose to tell your own story of both the grand and small things so that you can find inner piece in your soul. The more you gaze into the moving paintings, the more you will find, and the more tranquil your mind will become.

So, why not join us for a walk, for some time with a book, for yoga or exercise, for meditation, for better sleep, for creating a suitable atmosphere for a guest? Why not treat your parents with an infinite window to distant places which they can see at any time they want? Why not gift this to yourself?

Find AMBIENCE TV and improve your mental well-being, increase the speed at which you work, boost your productivity without harming yourself, and relax like you have never done before. While AMBIENCE TV is a new project, it has already been well-received by early adopters and has partnered with the Swiss INNOBIZ company, and the Korea-German "Project Magnolia" in an effort to bring calmness and relaxation to our busy lives.