



ŁÓDŹ

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NATURE WITHOUT BORDERS

THE THERAPEUTIC ASPECT OF NATURAL WORLD
MOTIFS AND THEIR COLOURS IN
THE COLLECTION OF PRINTED TEXTILES

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NATURE WITHOUT BORDERS

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Introduction

This doctoral thesis aims to present a collection of prints of various functions, which is intended for relaxation spaces inside spas and places conducive to serenity, reverie and contemplation. The creative process involves print design on a textile and elements of photography and painting. This thesis is a continuation of original artistic and design exploration, and focuses on the area of the Polish Jurassic Highland (Jura Krakowsko-Częstochowska). The issue addressed in this paper makes it possible to treat nature as an endless source of inspiration. It also indicates that in times of crisis caused by the Covid-19 pandemic, nature still evokes trust and need for closeness in human.

This doctoral collection includes three collections such as printed textiles arranged as a spatial installation, painting modules, meditation accessories and exercise accessories. Textile designs and prints were based on elements taken from the natural world. Patterns reflect the abundance of forms and colours, as well as the variety of textures and trends originating from the region of southern Poland. The collection includes selected motifs of wildlife from the Polish Jurassic Highland (Polish: Jura Krakowsko-Częstochowska) – lycopods, outliers and karst springs, as well as their interpretations. Similar textures are found in the wall panels, which were created using a mixed technique of *all-over painting* and conventional printing.

The research question covers the broad topic of how the natural world affects humans and their environment. The idea of this paper is based on the border of several fields: artistic creation, psychology and chromotherapy. The design part was considerably influenced by the original experience and sensory-emotional impressions. It should also be stressed that intuition played an important role during the creation of textile compositions. This topic has opened up new possibilities to use textile decoration media in terms of the creation of print patterns, which in this case is an integral part of all parts of the collection. The primary goal was to create interior textiles and accessories that were both aesthetically pleasing and functional. The *Nature Without Borders* collection is addressed to those who use wellness treatments and attend places that restore mental balance.

Another important assumption is the attempt to answer the following questions: Do natural origin colours and textures affect the mood of the viewer? Do they bring harmony to the interior and evoke elements from the landscape? It was necessary to deepen the knowledge of the geographic structure of the region of the Polish Jurassic Highland in order to achieve the specified design purposes. The source literature was centered around interdisciplinary issues that refer to art history, philosophy, psychology, unconventional medicine, and geology. In this case, direct contact with nature and participation in the plein-air painting *Jurajska Jesień* [Jurassic Autumn] for several times turned out to be priceless. During these meetings, it was possible to observe a landscape

that provides inspiration in every season of the year. Plein-air trips to the Polish Jurassic Highland enabled conducting a survey on the influence of colours on the human psyche.

The theoretical part of this thesis consists of four chapters. Each of them is a separate block of inquiry on the role of the natural world in life, art and design. It should also be emphasised that this paper is a holistic view of the issue: inspirations of nature in applied art. Therefore, this dissertation is not an in-depth study of the problem, but rather an attempt to analyse the topic from different perspectives. Nature in this broad sense appears to be an endless source of original inspiration, boundless exploration and interpretation.

The first chapter addresses the issue of nature, natural world and the bond between them and human. A selection of previous studies concerning nature and human are presented, as well as specific examples of artwork related to natural world and relevant to the topic of this paper and its creative part. The importance of the relationship between human and nature is highlighted, as well as its positive impact on human health. There is also a discussion of the origin of the geographical macro-region, i.e. the Polish Jurassic Highland, together with its specific structure and vegetation. This thesis also focuses on the positive impact of the Polish Jurassic Highland natural environment on individuals.

The second chapter outlines issues concerning the essence of colours in human life and the therapeutic aspect of colours in chromotherapy. The important motif of earth colours in the interiors of houses and their daily influence on the human psyche are also addressed, including the latest textile trends. This doctoral thesis also describes the role of textiles in interiors regarding specific, ordinary to decorative, functions.

The third chapter explores the original collection of prints, inspirations, design intent, and the process of creating the artwork. There are also details concerning the collection's destination. Documentation, a description of meditation accessories and exercise accessories, and an image shoot are also included.

The fourth chapter addresses the research methodology and the survey along with its analysis and design. This chapter also provides opinions of experts, i.e. a psychologist, an interior designer and a yoga practitioner, who consider and recommend the collection from therapeutic perspectives.

The summary is an attempt to analyse the results obtained and the possibilities offered by the multifaceted use of printing in the creation of the collection with a „mission” that includes textiles and ordinary items of a particular function.



NATURE WITHOUT BORDERS

01

THE HUMAN AS PART OF NATURE

2022

Chapter I

THE HUMAN AS PART OF NATURE

The concept of nature and the natural world
The beauty of nature as an inspiration for artists
The Human-environment relationship
Remarkable natural elements taken from
the Polish Jurassic Highland natural environment

1.1. The concept of nature and the natural world

*We are all – people, plants, animals,
and objects – immersed in a single space¹.*

Olga Tokarczuk

The primary inspiration for the art was nature in its broadest sense and the bonds between it and human. The European concept of nature was formed under the influence of Greek philosophy. Aristotle recognised its complexity and the fact that it is under constant transformation. Nature is the collective group made up of animals, plants, and people, excluding human-made objects. In the Middle Ages, there was a distinction between the „created nature” (the set of visible objects) and the „creating nature” (resulting from the force that created it). The development of this concept included God. The ambiguity of understanding this concept has survived until modern times. In both Polish and English there are two similar terms such as „natural world” [Polish „przyroda”] and „nature” [Polish „natura”]. The natural world is understood as a collective group of natural things, while the nature is understood as a source of natural world, forming human and the entire world. This means that natural world is the visible world that was created without human intervention. Nature is the force that directs the natural world. The common basis for nature and natural world is cosmic order – simple, endless, diverse, free from convention and artificiality².

In a terminological perspective, the interpretation of nature is reflected in its understanding on other levels of symbolic culture, such as art. In the history of European art, there is a discrepancy between the reproduction of nature and the reproduction of natural world. According to the ancients, natural world was perfection, a model to follow, and it met the criteria of beauty.

In the Middle Ages, God was considered the greatest artist, who was elevated to the perfect form. In later eras, nature was mainly seen as order and intentionality. The rationalist cult of nature lasted until the end of the 17th century, affecting currents in art, art theory and aesthetics at that time. This belief, however, became devalued under the influence of the pre-Romantics in the 18th century. Again, those beauties of natural world that could be experienced were glorified: colorfulness, multiplicity, the possibility of cyclical rebirth³.

As a result, it has become customary to think that there are different views of understanding nature and natural world. According to Tatarkiewicz, the most significant

views are as follows: 1) art is in harmony with nature, it is its imitation; 2) art departs from nature and is more perfect compared to it because things that are not beautiful in natural world can become so thanks to art; 3) art cannot render certain phenomena and properties of natural world; 4) art and natural world, despite their similarity, belong to different orders⁴.

The above-mentioned concepts are reflected in art and influence its nature. Although there is a large number of viewpoints, nature and natural phenomena appear as endless sources of inspiration for artists and designers. It should be noted that they contain both aesthetic and meaning potential. At the same time, they are excellent tools for visualising human emotional states. The relationship between human and nature influences the need for respect towards the natural environment and the elements. The oldest manifestations of human artistic activity from prehistoric times testify to this belief.

Nature, understood as a collection of flora and fauna, was therefore the primary and constant motif of human artistic activity. The only thing that changed was the way it was shown – from the naturalistic portrayal, which became the origin of human art, to the realistic or conceptual portrayals, which were expressions of human deep reflection⁵.

1.2. The beauty of nature as an inspiration for artists

Beauty is nature's brag⁶.

Charles Darwin

Nature can also be a stimulant for the „soul” and an inspiration that stimulates imagination, which offers a space for reflection. The words of the German poet and novelist Novalis „art is the complement of nature”⁷ express how important a role is played by natural world. The natural world especially encourages artists to think creatively, since this social group is by definition more sensitive and sees more in the world around them. By creating works of art, artists express their admiration of flora. Capturing its original shapes and colours in the form of works of art can make everyone have a chance to admire this inspiring beauty. On the other hand, the possibility of interpreting nature in the visual arts enables unlimited contextual change and the generation of topical content and messages.

Due to a multitude of presentations and studies of the motifs of nature in art, necessary limitations were adopted and investigations were limited to selected examples. The presented artworks, despite formal differences, have a similar impact and fall

4. W. Tatarkiewicz: *Dzieje sześciu pojęć*, Polish Scientific Publishers PWN, Warsaw 2005, pp. 347-349.

5. Source: https://Studia_Etnologiczne_i_Antropologiczne-r2017-t17-s103-114.pdf, accessed on 8 February 2022.

6. Source: <http://cytaty.o.pl/charles-darwinpiekno-natury-jest-uzewnetrzeniem-natury/>, accessed on 20 December 2019.

7. Source: <https://www.cytaty.info/cytat/sztuka-jest-dopelnieniem-natury.htm>, accessed on 11 September 2020.

1. Source: <https://charaktery.eu/artykul/jestesmy-czastka-przyrody>, accessed on 8 February 2022.

2. Source: https://bazhum.muzhp.pl/media/files/Studia_Etnologiczne_i_Antropologiczne/Studia_Etnologiczne_i_Antropologiczne-r2017-t17/Studia_Etnologiczne_i_Antropologiczne-r2017-t17-s103-114/Studia_Etnologiczne_i_Antropologiczne-r2017-t17-s103-114.pdf, accessed on 8 February 2022.

3. Source: https://bazhum.muzhp.pl/media/files/Studia_Etnologiczne_i_Antropologiczne/Studia_Etnologiczne_i_Antropologiczne-r2017-t17/Studia_Etnologiczne_i_Antropologiczne-r2017-t17-s103-114/Studia_Etnologiczne_i_Antropologiczne-r2017-t17-s103-114.pdf, accessed on 8 February 2022.

within my area of inspiration. While analysing the examples, particular attention was paid to different aspects of nature. These aspects can be put in two trends of reference: formal – based on stylisation of the shapes of nature in artwork compositions, and rational – based on the simplicity and logic of nature visible in its forms, processes of creation and principles of functioning.

The observation of the Polish Jurassic Highland, especially limestone rocks overgrown with vegetation, evokes associations with prehistoric paintings in which colours of plants are reproduced using natural dyes. In order to create the painting, pigments were applied with fingers, using moss or a hollowed-out bone to inject paint.

However, the first captured images of plants were made by natural processes, not by humans. Many plant prints were created millions of years ago by being imprinted or trapped between sedimentary rocks. In the Paleolithic period, cave walls were mainly covered with realistic depictions of animals. The analysis of the oldest examples of human artistic activity indicates that relationship with nature was fundamental. The leading theme of prehistoric art was the world of living beings. This is evidenced by the Lascaux cave paintings (France) that depict images of animals, which were supposed to delight with their beauty (Fig.1). Botanical illustrations appeared only in ancient and medieval herbaria with the development of medicine. Herbaria were a combination of science and art. They included forms of plants that were decorative in nature.

An example is the illustrated version of Dioskurides' manuscript *De materia medica* known as the *Juliana Anicia Codex*, c. 512 AD) 52. It contains painterly representations of flora (Fig.2). Some pages feature individual specimens – realistic-looking plants while others are more decoratively woven into the text. Another example is the work *Herbarium vivae eicones ad naturae imitationem* by Otto Brunfels, who developed detailed illustrations of plants with great passion and love for nature (Fig.3). The work contains precise drawings created after Hans Weiditz's watercolour paintings. In this work, descriptive texts are devoid of decorative elements, and plant specimens are depicted extremely realistically, including all the features of the found form. For this reason, Weiditz's drawings go beyond the needs of botanical illustration.

Vivid depictions of plants and studies of them were not only conducted for herbarium studies. Nature, understood as fauna and flora, also appeared in the circle of interest of artists. Leonardo da Vinci made a huge number of plant studies for his paintings. Such an example is a study of lilies (Fig.4). The artist made an effort to accurately recreate all the specifics of the genre. The plants he sketched can be accurately distinguished botanically⁸.

The most famous publication about plants is the codex *Hortus Eystettensis* (Garden of Eichstätt) by Basil Besler (Fig.5). A German pharmacist initiated the preparation of

a register of plants found in the bishop's gardens in Eichstätt. The 16-year work resulted in the codex *Hortus Eystettensis* (Garden of Eichstätt), which contains the structure of more than 1,000 plants and consists of 374 masterfully created, naturalistic copperplate engravings. According to the source literature, the art of making herbaria spread across Europe in the seventeenth and eighteenth centuries⁹.

At the beginning of the 18th century, the first Polish herbarium was compiled by Jerzy Andrzej Helwing. His collection included exceptional specimens: „Unlike other herbaria, it does not contain descriptions of medicinal or useful plants, but only dried plants (Fig.6). This is *herbarium vivum* (*living herbarium*) or *hortus siccus* (*dried garden*), a collection of botanical specimens”¹⁰.

Such an example is Stanisław Wyspiański's body of work. In his *Zielnik* which contains a large collection of sketches, Wyspiański focuses on plants. During his botanical expeditions, Wyspiański penciled various specimens of Polish flora, such as flowers, herbs, grasses and leaves (Fig.7). He made drawings on thin sheets of notebook paper, often by capturing plant colours with watercolour. These are unique works of a great draughtsman and writer blessed with a talent of an astute observer of nature¹¹.

It is impossible not to mention Ernst Haeckel, the 19th century biologist and draughtsman who discovered and described many species. In his zoological career, he created several thousand sketches of foraminifera, fish, molluscs, but also birds, reptiles and plants (Fig.8). He mainly focused on jellyfish studies. Haeckel's *Art Forms in Nature* inspired Art Nouveau artists¹².

The body of work of English artist William Morris, who initiated a new way of depicting plants in the 19th century, is particularly interesting in the light of the topic. His designs for textiles and wallpapers were a departure from the realistic representation of botany, and a turn towards a modernist way of presenting the plant world (Fig. 9). Morris was a populariser of decorative floral designs on a large scale. In the late 19th century, he introduced botanical printmaking to Victorian society. He decorated handmade sheets of paper with floral and plant motifs. Morris interpreted nature motifs in his own way, ignoring chiaroscuro and three-dimensionality.

It is difficult to present all examples. For this reason, works that relate to the appropriate concept, topic or practical method were selected.

It is impossible to ignore Marimekko's Finnish designer Maija Isola, who portrayed nature using textile patterns. Her famous *Luonto* (nature) motif was created by imitating real plants (Fig.10). In her 1970 letter to her daughter Kristina, written in Paris, Isola described her creative technique as follows: „I feel as if I'll never find the

9. Source: http://www.zielnik.biol.uw.edu.pl/?page_id=567, 10 October 2019.

10. Source: http://www.zielnik.biol.uw.edu.pl/?page_id=567, accessed on 13 October 2019.

11. Source: <https://bid.desa.pl/lots/view/1-2GKJAX/stanisaw-wyspianski-mniszek-i-studia-rolin-z-zielnika-recto-szkic-postaci-kobiecej-verso-okoo-1897>, accessed on 13 November 2020.

12. Source: <https://www.vogue.pl/a/milosc-ukryta-w-naturze>, accessed on 13 October 2019.

8. Source: https://pl.wikipedia.org/wiki/Studia_Leonarda_da_Vinci, accessed on 9 January 2022.

time to do even a fraction of all the things I want to do. I had a huge floral still-life of sorts spread out wet on the floor, waiting to be rolled up... paints in yoghurt pots, and newspaper everywhere, and flowers in vases on the floorboards (...)"'. In addition to her iconic poppies, Maija Isola designed c. 500 other patterns, including the well-known floral *Primavera* motif that features large marigold flowers¹³.

In further part of the chapter, there is a focus on examples of nature as not only as an inspiration, but also as an interpretation and a way of viewing it as artistic matter. When a work of art provokes reflection on the inseparable relationship between human and nature, the consequence of which is the awareness of human's proper place and role in nature and being a conscious co-partner in a dialogue with it, then it is possible to speak of ecological art¹⁴.

Ecological art has always existed, it is an expression of attitude and behaviour towards sustainability of natural environment and cultural environment. These types of activities often represent an intrusion into the landscape, transforming a piece of the Earth's space or using natural processes to create works of artistic interest. Land art refers to the transformation of some public space into an artistic activity without destroying the area. An interesting example of land art is the work of American artist and land art pioneer Robert Smithson, which is located on the shores of a lake in Utah. Robert Smithson's work depicts spirals, circles and mounds turning counterclockwise. The artist used natural materials of the lake shore to create his work, e.g. basalt rocks, water, earth and salt crystals. The work has enormous proportions because its length is approximately 450 meters and it is the epitome of Land Art. It is interesting that Robert Smithson's work cooperates together with the changing substrate of the lake shore. At the time of creation of the work, the waters of the lake had extremely low level due to drought, and when the water level returned to normal one within a few years, it submerged the work for the next three decades (Fig.11).

Another example is Henrik Håkansson, a Swedish artist whose works address nature but also ecology and the negative impact of human on their environment. The source of inspiration for him is natural world and phenomena that occur in it. The artist explores the relationship between humans and animals, insects and plants. He uses methods that resemble systematic observations of natural world as used in scientific disciplines. Håkansson alludes to the complex relationship to nature not only in relation to ethics and ecology, but also to how nature was defined by art and science in past centuries (Fig.12).

There is also a fascinating installation reversing the relationship between nature and art – *The Weather Project* by Olafur Eliasson, who brought the concept of „Weather” into the Tate Modern in London (Fig.13). The installation allows viewers to move through the fog or lie on the ground and contemplate the endless sensation of the pulsating sun. The

Turbine Hall landscape looks like a realistic one. It transforms the field of view around the giant „sun” into a vast landscape. Visitors are surrounded by a dazzling splendor that combines the realm of real space with a place for reflection¹⁵.

The installation *Superorganism* by Polish artist Elwira Sztetner should also be mentioned. *Superorganism* answers important questions concerning elements of natural world as innumerable autonomous beings or as one great whole (Fig.14). In one of her exhibition catalogues, the artist writes: „Superorganism – a colony of many individuals of one species working together so closely that they cannot survive individually. Each colony of moss growing on a stone or each fragment of a wall create their own microclimate. They are a safe haven for other species sharing the miniature world with them. Together they form a symbiotic, multi-species organism linked by a network of relationships in which each plant, fungus or insect has its place”¹⁶.

The works of German artist Cornelia Konrads have been an important inspiration for my body of work. She creates interesting, distinctive installations in public places, including parks and private gardens around the world. Her works are often punctuated by the illusion of weightlessness, in which stacked objects such as logs, fences and doors seem suspended in mid-air, as if the installation was about to collapse (Fig.15).

The catalogue for the 2019 exhibition *Nature in Art*, held at the Moca Museum of Contemporary Art in Krakow, reads: „Humankind is the only species on Earth to have mastered nature. For millennia, it was the reign of a predator relishing in its power. Fortunately, empathy towards the natural environment has begun to grow in humans”¹⁷. While analysing the works of artists presented at the above-mentioned exhibition, attention is focused on the works of contemporary Japanese artist Yoshihiro Suda, who is known for his hyper-realistic sculptures of plants and flowers created in the tradition of Japanese woodcarving (Fig.16).

Another artist relevant to understanding this doctoral thesis and my way of looking at art is Alexandra Kehayoglou. This visual artist works primarily with textile materials. „She is primarily interested in production processes bringing together art and craft, and develops functional works as complete works of art, in which knowledge of the materials, the technique, and spectator are inseparably intertwined. The weaving is done by machine (handtuft pistol), that the artist manipulates upon vertical frames, in order to weave, stitch by stitch, the final work. The production process is arduous and long, requiring much physical effort and a very precise technique”¹⁸. A. Kehayoglou's works are memories of various landscapes that she has visited and wanted to keep in her memory. Her famous meadows or green fields are unique because of their texture, unusual weaves and colours. Each piece of textile is created from a family tradition with

15. Source: <http://exspace.pl/articles/show/1717>, accessed on 21 April 2022.

16. Text from the exhibition catalogue of the *1st Art Textile Biennale [I Biennale Tkaniny Artystycznej]* in Poznań, 2017.

17. Text from the catalogue of the exhibition *Natura w sztuce [Nature in Art]*, Moca, Krakow 2019.

18. Source: <https://alexandrakehayoglou.com/Biography>, accessed on 10 October 2019.

13. Source: <https://www.unityline.pl/blog/maijsa-isola-marimekko-i-maki>, accessed on 12 October 2021.

14. See U. Czartoryska: *Od pop-artu do sztuki konceptualnej*, Art and Film Publishing House, Warsaw 1973.

a new meaning given to it. In 2014, Kehayoglou developed the design for a 50-meter-long carpet, which was used as a runway during Paris Fashion Week and later as a place of rest for models in Van Noten's Spring Women's Collection (Fig.17).

The arrangement concept of the collection in the spa was significantly influenced by the work of New York artist Richard Serra, which inspired me to install the textiles in meditation spaces. The artist drew on the experiences from his stay in Kyoto and the Taizo-in zen garden. The author claimed that the garden was designed in a way that invites un-programmed walks and that through it the idea of *Ma* is fulfilled –emptiness in arrangement. R. Serra understood space not as a concrete concept of a specific physical surface but as a mental phenomenon which is felt in relation to time and which is a physical experience. Thus conceived space is primarily a sensory and intellectual experience¹⁹.

1.3. The Human-environment relationship

The concept of nature in its broadest sense refers to the reality around us, the state of things, the totality of phenomena that make up the world and the universe. It is divided into inanimate and animate nature. Inanimate nature comprises all abiotic factors that shape the habitat of living organisms, while animate nature consists of plants, animals and people. Fauna and flora together make up the natural environment of man, who is also part of it²⁰.

Man and nature form an integral, united whole - although this statement has the hallmarks of a truism, it is most definitely true. Contemporary research confirms what was obvious to our ancestors - we are a unity with the nature around us. Contact with nature is a condition of our survival and a way to our well-being. For this reason, we dream of spending time in beautiful places, we grow plants and animals, and we collect photos, smells and sounds. All these behaviours are a kind of substitute that is a reflection of human needs.

Nature has been and continues to be home to humans, providing a solid foundation for survival. For hundreds of thousands of years, we have lived depending on the forces of nature, as well as plant and animal species. Our perceptual experience was dominated by the green colour, which symbolised food and which calmed and improved mood.

Man controls their relationship with nature in many different ways. They can stir up their interest in it through passive contact that enables them to see its beauty and power and, thus, satisfy their own needs. One of them is ecotherapy, which has a beneficial impact on health: „(...) otherwise known as nature therapy or forest therapy is a practice used in the newly emerging field of psychology called ecopsychology. The term was first used by an American scientist - Theodore Roszak. Ecotherapy assumes that man is part of nature and

our psyche cannot exist in isolation from the natural environment; that is why contact with nature²¹ is so important from the point of view of our mental health.” For many years, research has been conducted on the impact of nature on man. Over the years, scientists have monitored the mental health of people who have moved to places with lots of greenery and those who have moved from such areas to much more industrialised regions. Studies have shown that people who began to live near green areas rapidly improved their mental state, while those who decided to leave such areas continued to reap the benefits of their previous proximity to nature for three more years²².

An analysis of scientific evidence carried out by the University of East Anglia included almost 300 million people. It shows that being close to nature brings a wide range of health benefits, e.g. it reduces the risk of heart diseases, cardiovascular diseases and diabetes and prolongs sleep. People who live among nature experience less stress, have lower diastolic blood pressure and a slower heart rate²³. The report describing the impact of green areas on human health comprised 20 countries. The researchers defined ‘green areas’ as open space with natural vegetation, urban parks and nature surrounding streets.

Researchers at the University of Michigan conducted studies on reducing stress levels. Participants were required to be in the bosom of nature for at least 10 minutes three times a week. *The Frontiers of Psychology* journal published the results of the study in which cortisol levels in the participants' saliva of study participants were measured for eight weeks - before and after contact with nature. The findings revealed that just 20 minutes in nature was enough to lower cortisol levels, and extending that time to approximately 30 minutes had the most measurable effects.

For many years, nursery schools located in the woods, meadows or on the beach have been very popular worldwide. The guides in them are nature lovers, people who believe that nature is a wise and patient teacher, and the forest – one big playground. Shinrin-yoku (a Japanese term that means *forest bathing*) is a sort of natural aromatherapy that came to Europe from the Far East, precisely from Japan, where it has been successfully used for half a century as a form of relaxation. Taking a forest bath is about immersing all your senses in nature. Moving at a leisurely pace in forested terrain, one can fully concentrate on receiving endless sensory stimuli from the environment. Citing M. Clifford, one of the leading forest therapy specialists in the United States, „the forest has to become our friend. The symbiosis between human and the miraculous power of Nature has to be reborn, to make us aware that we are a unique part of it, united since time immemorial”²⁴.

21. Source: <https://dziennikzwiazkowy.com/psycholog/ekoterapia-terapia-natura/>, accessed on 2 July 2021.

22. Source: <https://www.lenartpawel.pl/niezwykly-wplyw-przyrody-na-czlowieka.html>, accessed on 17 September 2020.

23. Source: <https://www.kopalnia.pl/kopalnia-wiedzy/co-daje-ludziom-kontakt-z-natura-5-zalet-obcowania-z-przyroda-sds7>, accessed on 7 September 2019.

24. M. Amos Clifford: *Kapiele leśne*, Published by Kobiectwo, Białystok 2018, p. 35.

19. Source: <https://niezlasztuka.net/o-sztuce/richard-serra-rzezbiaz-blednika/>, accessed on 11 October 2021.

20. M. Amos Clifford: *Kapiele leśne*, Published by Kobiectwo, Białystok 2018, p. 35.

Connecting with nature through sight, sound, taste, smell and touch as well as enjoying the sounds, scents and views of natural world can support our immune system. Forest bathing is not just a walk in the woods, but also a way to make an unusual connection with natural world. It is a reliable antidote to accumulation of thoughts, stress and fast pace of life. The art of calming down in nature has great benefits. By practicing forest bathing, humans can become aware that they are a part of nature. Walking, combined with proper breathing, has a positive effect on the human body. Trees, bushes and other green plants produce large amounts of oxygen, which is necessary for most organisms to function properly, so they have both the ability to clean the air of carbon dioxide and reduce stress hormone levels²⁵. Regular visits to the woods decrease heart rate, reduce blood pressure, balance the pulse, strengthen the immune system, and result in a noticeable improvement in mood²⁶. There are many benefits of being near nature. It helps people in many ways, including improving mental state, reducing stress, and aiding in recovery from surgery. Traditional methods of treatment with the help of nature, i.e. treatment with natural methods, often saves lives. “Modern medicine tends to treat the patient holistically. This means that it uses natural therapies on par with conventional treatment. Natural therapies regenerate the body, unleash the body’s immune system, shorten the duration of illness and, most importantly, have no side effects on the body²⁷”. Most patients seek alternative treatments and are open to natural medicine, which is primarily about stimulating the body to recover by its own efforts. To quote Paracelsus, who was a physician and naturalist known as the father of modern medicine, “the physician dresses your wounds. Your inner physician, though, will restore your health²⁸”.

Humans, remaining in harmony with nature, should discover themselves. Living in an integrated society causes them to begin to model themselves after others, often losing their own, very original identity. Only social isolation and living in nature can release the energy in a person to make appropriate changes.

It should be noted that nature is not just for satisfying human desires. There are many ways to discover a way of life in harmony with the environment. In return, a real array of benefits awaits. Pro-ecological behaviours include, but are not limited to, making informed food choices by eating natural food and drinking natural beverages. The potency of plants used for medicinal preparations and cosmetics should be recognised. In general, effective natural therapies support conventional treatment. Since time immemorial, plants have also been used in the textile industry as fibers for textiles and as dyes.

Nowadays when the reality around us is so engulfed by technology, it seems to us that we have mastered the ruling of the world almost to perfection. Mother Nature, how-

ever, continues to be an inspiration to people, especially scientists and artists who seek help and guidance from it²⁹.

It is important to respect nature, as it is what keeps people healthy and alive. The latest pandemic has clearly revealed to all humankind that contact with nature is a great value for people.

I.4. Remarkable natural elements taken from the Polish Jurassic Highland natural environment

*There is a certain pleasure in the pathless woods,
There is a rapture on the lonely shore,
There is society where none intrudes,
By the deep Sea, and music in its roar:
I love not Man the less, but Nature more³⁰.*

George Gordon Byron

According to the topic addressed, the Polish Jurassic Highland is my field of research. The Polish Jurassic Highland is an extremely inspiring place where I was born and where I come from. Being in Jura, I was repeatedly exposed to heat, cold, wind, rain and surrounding nature. I found that all of this had a significant impact on my mood, body’s immunity and fitness. I belong to the group of the Polish Jurassic Highland lovers, whose passion is tourism and sightseeing. Walking through green spaces, observing the natural rhythm of changing seasons as well as parts of a day and weather have become my own experience, a kind of family ritual.

I get the impression that it is very important to follow your inner voice and combine the pleasant with the useful. Being active in nature is a return to life in its original, organic dimension. It activates the energy and mechanism of psychophysical improvement and makes the heart rate and blood pressure optimised – you breathe deeper, so the cells are better oxygenated. Rock climbing is an amazing adventure combined with outdoor exercise activities and mental relaxation. Besides, people can also go for a simple walk or trek in a park or forest to relax, calm down and emotionally regulate. Natural world can be constantly surprising. It only takes time to stop, notice and marvel.

The natural environment of the Polish Jurassic Highland, which is an astonishing ecosystem located between two large cities, became the subject of reflection and inspiration to undertake research on the issues addressed in this dissertation. My interest in this particular area is dictated, among other things, by my personal knowledge of

25. Source: <https://drgaja.pl/7-obszarow-szczescia-obcowanie-z-natura/jak-natura-wplywa-na-obnizenie-poziomu-stresu>, accessed on 7 September 2019.

26. M. Amos Clifford: *Kapiele leśne*, Published by Kobiece, Białystok 2018, p. 9.

27. T. Stąpór: *Chromoteapia leczenie kolorem*, Wydawnictwo Astrum, Wrocław 2000, p. 7.

28. A. Michalsen: *Leczenie siłami natury*, Muza SA Publishing House, Warsaw 2018, p. 12.

29. Source: <https://mlodytechnik.pl/technika/29192-matka-natura-najlepszy-inzynier>, accessed on 7 February 2022.

30. G.G. Byron: *Wędrowki Childe – Harolda*, Gebethner & S-ka Publishing House, Kraków 1896, p. 6.

it – I grew up in Częstochowa and had almost daily contact with greenery, and while wandering along the trails of the Polish Jurassic Highland I found more and more interesting places, including caves such as Jaskinia Nietoperzowa, Jaskinia Mamutowa and the deepest one – Studnisko, located in Sokola Góra. As a result of my lasting connection with nature and the qualities and beauty of this area, the idea to capture these impressions in my art and design work was born. In the course of creating this dissertation I made photos, sketches and read many studies on the Polish Jurassic Highland. All geographic and historical information included in this paper comes from sources such as *Jaskinie Wyżyny Krakowsko-Wieluńskiej* by Mariusz Szelerewicz and Andrzej Górny and *Wierchowinowe formy skalne Wyżyny Krakowsko-Częstochowskiej* by Józef Szaflarski. *Jaskinie Wyżyny Krakowsko-Wieluńskiej* by Mariusz Szelerewicz and Andrzej Górny, and *Wierchowinowe formy skalne Wyżyny Krakowsko-Częstochowskiej* by Józef Szaflarski.

It is worth mentioning that this unique geographic region is made up of limestone rocks formed from skeletons and carapaces of animals that lived in the warm sea of the Jurassic period c. 150 million years ago. Hence the name the Polish Jurassic Highland. The past of the area is represented by ammonites, i.e. helically-coiled shells, fossils of animals that once lived there (Fig.18). Their evidence can often be found on Jurassic rocks³¹. In the sea waters at that time, there were also belemnites that possessed a simple shell. Moreover, sea urchins, brachiopods, clams and sponges lived on the bottom of the sea. The landscape of this area is very diverse in terms of relief and vegetation, quite different from other parts of Poland. Typical elements of Jurassic nature are ferns (lycopods) and limestone rocks (outliers). Lycopods are a genus of plants in the family Lycopodiaceae that counts approximately 15 species, of which one occurs in Poland (Fig.19). The outlier is an elevation formed as a result of weathering and erosion processes. These limestone rocks occur as isolated landforms, often with rocky, steep slopes that are remnants of a larger rock massif (Fig.20).

Karst springs are abundant springs through which water from underground passages and fissures seeps to the surface (Fig.21). These springs are most common in mountain regions. Karst springs are usually vauclosian springs (named after *Fontaine de Vauchuse*, a French village) – places where groundwater rises to the surface in karst areas. The largest system of karst springs in the Polish Jurassic Highland, whose waters run off to the Wiercica River, include „Źródła Zygmunta” and „Źródła Elżbiety” located in Złoty Potok. The above-mentioned springs were named by a local poet, Zygmunt Krasiński, to honour his son Zygmunt and his daughter Elżbieta. While wandering through the Parkowe nature reserve – in the place where the above-mentioned springs are located – you can find that the number of active outflows of springs „Źródła Zygmunta” varies over the years: „The cold, well-oxygenated waters of the seepage spring area have

their own specific fauna. These springs are inhabited by, among others, numerous *Dugesia gonocephala*, mayfly larvae, *Bythinella austriaca*. *Crenobia alpina* has recently become extinct, probably due to the disappearance of outflows feeding the upper seepage spring area. Sandbanks located in the Wiercica riverbed below the springs are overgrown with a plant community composed of *Cardamine amara* and water mint³². The Polish Jurassic Highland is a very attractive region in terms of its natural environment. In addition to rare plant species, there are also typical mountain species that survived after the last glacial period, e.g. *Galium cracoviense*, *Cochlearia polonica*, *Delphinium oxysepalum*, *Betula pendula* var. *oycowiensis*, *Larix polonica*.

The area is rich in limestone rocks with a predominance of caves with speleothems. Rocky outcrops and limestone outliers also attract attention. They are elevations which are formed by erosion and weathering, and they are remnants of a larger rock mass. Both rocky outcrops and limestone outliers are landforms with steep rocky slopes of uncommon shapes. There are a lot of limestone outliers in Ojców National Park (Polish: Ojcowski Park Narodowy), which were formed from the huge amount of remains of organisms living in the Jurassic sea. Limestone outliers are white, light yellow or grey and the most beautiful of them include *Maczuga Herkulesa* and *Brama Krakowska*, which are known all over Poland (Fig.22). The Polish Jurassic Highland is a unique area in terms of geomorphology, flora and fauna. It consists of a unique surface topography and various karst phenomena.

Historical, geographical and ecological elements deserve special attention: „There are many species protected and registered in the *Polish Red Data Book of Animals* [Polska Czerwona Księga Zwierząt], included in the red list of endangered and extinct animal species of Poland. There are differences in fauna compared to the southern part of the Polish Jurassic Highland. There is a higher population size in a number of valuable species compared to populations in areas heavily transformed by human activities³³. The colourful shapes of limestone rocks and the atmospheric landscapes of Jurassic gorges and valleys were created as a result of geochemical processes involving dissolution of rocks by rainwater. This is so-called karstification, and the area where such phenomena occur is a karst area. The Polish Jurassic Highland is the largest area of occurrence of these phenomena in Poland. Jurassic rocks are modelled by rainwater and they form characteristic depressions, clints and grikes on their surfaces. These rocks circulate in underground fissures, flushing out systems of cave chambers and passages.

The oldest rocks date back to the Devonian period, i.e. 390-345 million years ago. However, most of the Polish Jurassic Highland is made up of slightly younger Jurassic

32. Text taken from the information board of the Landscape Parks Complex of the Silesian *Eagles' Nests* Landscape Park, Nature trail through the *Parkowe* reserve Trail Stop #12 – Karst Springs „Źródła Zygmunta”, 21 September 2019.

33. Hereźniak J., Skalski A.W. : *Zespół Jurajskich Parków Krajobrazowych*, Published by Central Tourist Information Centre [Centralny Ośrodek Informacji Turystycznej], Częstochowa Branch, Częstochowa 1999, p. 4.

31. Source: http://www.zawiercie.powiat.pl/data/other/file_4ab0b44466f3a.pdf, accessed on 7 September 2019.

rocks that settled at the bottom of the warm sea and on which traces of ancient plants and animals were imprinted. Mesozoic rocks, especially ammonites, are also beautiful formations. Many of the rocky outcrops were formed in the Tertiary period, and the Jurassic landscape was significantly influenced by changes occurring c. 1 million years ago in the Quaternary period. At that time, the warm sea receded from the area. The whole area was the bottom of the sea, which resulted in many layers of rocks such as dolomites, marls and limestones, while the dominant ones are Upper Jurassic limestones. Caves and limestones cut by erosion valleys are also characteristic elements. „Usually, the underground chambers and passages are covered with speleothems (dripstones) such as stalactites, stalagmites, stalagnates, flowstones, clints, draperies and rimstones in which sometimes lie almost perfectly spherical pisolites – cave pearls”³⁴. Currently, pisolites are found in caves only occasionally, and the largest accumulation of them was discovered in the Saspowska Cave (Fig.23). Dripstone formations are a natural decoration of underground chambers and passages. They often cover the entire area of the ceiling, walls and the bottoms of chambers and passages.

The region south-east of Częstochowa is the place with the most caves in Poland. Visitors can find there fossilised organisms, which migrated from the equatorial region, and outliers – harder rock fragments that are not subject to dissolution – that were formed by channeling. The most interesting is the system of the oldest medieval castles in Poland, which were built on hard-to-access limestone rocks. Having read the source literature *Jura Krakowsko-Częstochowska. Z legendą wśród Orlich Gniazd* by Monika and Artur Kowalczyk, it is possible to learn that most of caves are connected by a red marked tourist trail – the Trail of the Eagles’ Nests. Its route was marked in 1950 and begins at the Old Market Square in Częstochowa and ends at Wawel. The route passes through several wildlife reserves, such as Ostrężnik or Sokole Góry, and Ojców National Park.

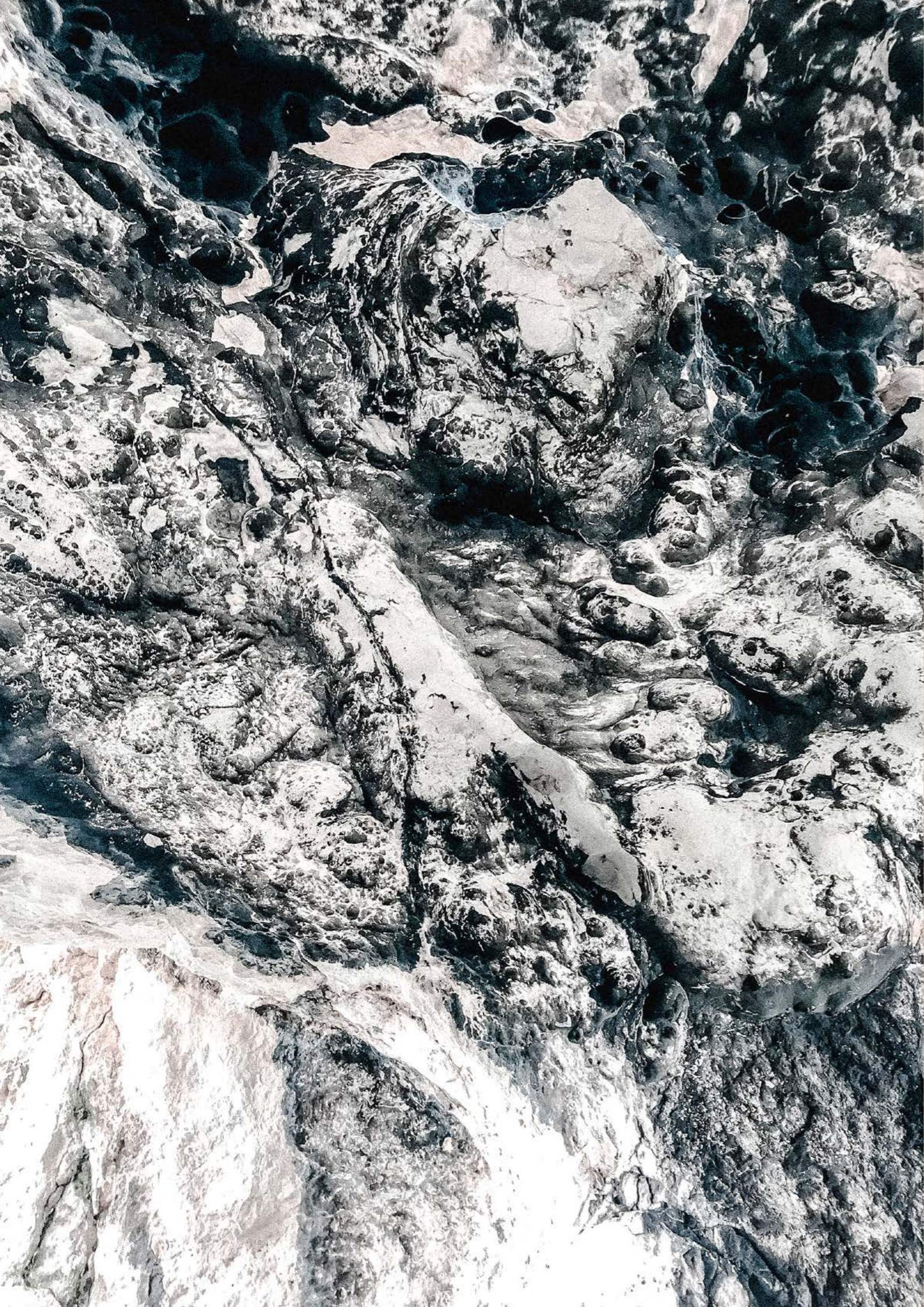
The Polish Jurassic Highland became an inspiration and leitmotif for my scientific and artistic research focused on the theme of nature and its influence on the human psyche and – which is a secondary reflection – the determination of the place of birth and upbringing on further creative work. The environment I grew up in has had a large effect on my thinking and imagination. After Olga Tokarczuk I can repeat „(...) we enter inside a great living organism, an infinitely old, self-organising being that will host us for a while. It is a great living organism, internally coherent, full of mysteries, which we are not able to grasp”³⁵.

It can be said that the Polish Jurassic Highland has determined my life and artistic choices. I have always thought of it in a natural way. The observed phenomena, shapes of natural world and its impact on humans became the subject of my research – from

inspiration through the choice of means of expression, textiles and accessories to the method of project implementation, or the choice of scenery for the photo shoot. Communing with nature stimulates my creativity, strengthens my attention, and is a source of countless ideas. The concept for the collection was born in the Polish Jurassic Highland and the photo shoot took place there, which was an amazing experience (Fig.24).

34. Hereźniak J., Skalski A.W.: *Zespół Jurajskich Parków Krajobrazowych*, Published by Central Tourist Information Centre [Centralny Ośrodek Informacji Turystycznej], Częstochowa Branch, Częstochowa 1999, p. 4.

35. Source: <https://puszcza-bialowieska.blogspot.com/2013/07/olga-tokarczuk-o-kulturze-i-przyrodzie.html>, accessed on 29 December 2019.



NATURE WITHOUT BORDERS

02

TEXTILES AND COLOURS IN DAY-TO-DAY USE

2022

Chapter II

TEXTILES AND COLOURS
IN DAY-TO-DAY USE

The therapeutic aspect of colours in chromotherapy
Colours in interior design vs human psyche
The analysis of current design trends inspired by nature
Interior textiles

II.1. The therapeutic aspect of colours in chromotherapy

*Colour is a power which directly influences the soul*³⁶.

Wassily Kandinsky

Colour is light of different wavelengths; the shorter they are, the richer their energy. For this reason, colours have different energy potentials and affect people on a psychological and physical level³⁷.

It appears that colours play a vital role in everyone's life, and it is not uncommon for the body itself to suggest colours to which it should be receptive. Most people are able to intuitively surround themselves with colours that can be calming or stimulating, e.g. a stressed individual may subconsciously feel the need for contact with greens and blues, a walk in the woods or a park. The surrounding world of colour can significantly impact human health, and skilfully administered colour therapy can effectively speed up recovery.

Probably the first colours distinguished by humans were black and red, and with the development of civilisation, the palette of colours recognised by humans expanded. Our ancestors considered colours significant and associated them with specific social positions or religious rituals. They also knew that with the right light colour, it is possible to influence the human psyche and the body - colour therapy was prevalent in ancient times and was known in ancient Egypt, Greece and Rome, among others.

The belief in the therapeutic power of colours was also shared by the inhabitants of China and India, who were the creators of chromotherapy (also known as colour therapy).

In *Chromoterapia, leczenie kolorem* [Chromotherapy, colour therapy], Teresa Stąpór writes: „Our body is subject not only to the influence of the sun, moon, wind, rain but also to the influence of colours. Our health, character and temperament depend on the colourful world around us. The different colours not only influence the human psyche but also stimulate the development of the cells in our body”³⁸. This unconventional therapeutic method called chromotherapy involves exposing a person's sense of sight to the right colours. Doctors in the old days believed that the normal healing process was to replenish the missing colour in the body and assign each person the primary colour whose absence disturbs the balance in the body. Chromotherapy is a modern term created by combining the Greek words: *chroma* - colour and *therapeia* - therapy. The benefits of

chromotherapy are not only healing procedures in natural medicine clinics but also facts of everyday life, whose colourful vibrations permeate all tissues of the body continuously.

In the 17th century, English physicist, astronomer and mathematician Isaac Newton discovered the spectrum by splitting a ray of light. It then became apparent that colour is an electromagnetic wave of different lengths. Despite this, colours were not used in medicine for almost 200 years. However, a discovery was made in England about ultraviolet in 1877. It was found to have a destructive effect on bacteria, and thus experiments with ultraviolet light to treat skin diseases and other conditions began.

At the end of the 19th century, Dane Edwin Babbitt rediscovered colour therapy. This colour therapy advocate stated that colours activate different parts of the autonomic nervous system responsible for metabolism and hormone secretion. While American physicist of Indian origin Dishah Pestanji Ghadiali (1873-1966) was the first to treat patients by exposing them to sunlight passed through various coloured filters³⁹.

Exciting from a psychological perspective is the non-associative psychological effects of colour, introduced by Russian painter and art theorist Wassily Kandinsky⁴⁰. He wrote: “Anyone who has heard of colour therapy knows that coloured light can have a particular effect upon the entire body. Various attempts to exploit this power of colour and apply it to nervous disorders have again noted that red light has an enlivening and stimulating effect upon the heart, while blue, on the other hand, can lead to temporary paralysis”⁴¹.

Modern colour therapy is one of the safest therapeutic methods using the achievements of modern technology. It occupies an important position among the methods of unconventional medicine. To quote Teresa Stąpór: „Modern physicists describe to us the fascinating world of light quanta, of vibrations of electromagnetic waves, and already the ancient Chinese spoke simply of a stream of chi energy. It permeates the entire universe and is the driving force behind all human activity and the cosmos.

Colour has a significant impact on the quality of *chi*, and by the same token, its effect on humans is also immense”⁴². Chromotherapy has become a popular device used in water massage systems. Thanks to its use, it is possible to influence mood and support the treatment of many diseases: migraines, neuralgia, neurosis and depression. Certain colours affect specific body parts because, like the human body cells, each colour transmits a different vibration frequency. If a person is healthy, it is constant. During illness, on the other hand, it becomes disturbed, and only the right colours help to return it to its normal state.

36. Source: <https://quotepark.com/pl/autorzy/wassily-kandinsky/>, accessed on 1 February 2020.
37. T. Stąpór: *Chromoterapia leczenie kolorem*, Wydawnictwo Astrum, Wrocław 2000, p. 13.
38. T. Stąpór: *Chromoterapia leczenie kolorem*, Wydawnictwo Astrum, Wrocław 2000, p. 13.
39. T. Stąpór: *Chromoterapia leczenie kolorem*, Wydawnictwo Astrum, Wrocław 2000, p. 10.
40. J. Gage: *Kolor i kultura. Teoria i znaczenie koloru od antyku do abstrakcji*, Wydawnictwo Towarzystwo Autorów i Wydawców Prac Naukowych “Universitas”, Kraków 2008, p. 207.
41. J. Gage: *Kolor i kultura. Teoria i znaczenie koloru od antyku do abstrakcji*, Wydawnictwo Towarzystwo Autorów i Wydawców Prac Naukowych “Universitas”, Kraków 2008, p. 207.
42. T. Stąpór: *Chromoterapia leczenie kolorem*, Wydawnictwo Astrum, Wrocław 2000, p. 63.

36. Source: <https://quotepark.com/pl/autorzy/wassily-kandinsky/>, accessed on 1 February 2020.
37. T. Stąpór: *Chromoterapia leczenie kolorem*, Wydawnictwo Astrum, Wrocław 2000, p. 13.
38. T. Stąpór: *Chromoterapia leczenie kolorem*, Wydawnictwo Astrum, Wrocław 2000, p. 13.

The influence of colour in everyday life can also be observed in sartorial choices – the colour of clothes can be used to emphasise how a person feels about the day. For example, vigour can be expressed with red and calmness with various shades of blue. State of mind, emotions, and mood influence the choice of a particular colour, and by using it consciously, we can control our well-being to a large extent. It is worth mentioning the words that J. Gage included in his book, *Colour and Culture: Practice and Meaning from Antiquity to Abstraction* [Pol. *Kolor i kultura. Teoria i znaczenie koloru od antyku do abstrakcji*]: „Colour is in our environment, and whether we like it or not, we are under its constant influence. Therefore, learning about the properties of colours is essential for the quality of our mental and physical health”⁴³.

The sun is the most important light source and has a biologically significant effect on the human body. At the same time, light has a significant impact on the psyche, improves mood, increases overall human activity and is a source of joy. Sunlight improves muscle performance, aids mineral absorption and strengthens resistance to infectious diseases. Exposure to the right light from halogen lamps helps to treat illnesses. „Filters should be selected so that the sum of their colours gives white light. By adjusting the intensity of the light from the individual lamps, the therapist can produce all the colours of the spectrum. The average exposure time is 20-25 minutes. Green is the only colour that can be used without restrictions. On the other hand, red should be used very carefully, as too much of it leads to irritation and annoyance”⁴⁴. It is also essential to eat foods of different colours, wear clothes in a certain colour and stay in interiors where the colours of walls, wallpaper, or curtains have been designed accordingly.

Colours affect our lives; they can both induce a change of mood and heal as they affect the entire human body. The specific impact of colours on people is proven by both doctors and psychologists. Colour therapy is part of treatments or becomes therapy in its own right, so wellness centres draw on this knowledge.

An equally interesting theory on the knowledge of relationships between psyche and colours is presented by Stanisław Popek in his book *Barwy i psychika [Colours and psyche]*. The author formulates extremely pertinent theses in which he sees the light and colours as energy regulating the functioning of living organisms. These issues are explored in Chapter V (*Colours in psychological diagnosis*) and the use of colour in therapy in Chapter VI (*Colours in therapy*). An area that falls within the field of psychological research is attempts to create appropriate tests to study emotionality using colour as an essential element.

43. J. Gage: *Kolor i kultura. Teoria i znaczenie koloru od antyku do abstrakcji*, Wydawnictwo Towarzystwo Autorów i Wydawców Prac Naukowych „Universitas”, Kraków 2008, p. 100.

44. Source: <https://pedagogika-specjalna.edu.pl/oligofrenopedagogika/chromoterapia-w-pracy-z-dziecmi/>, accessed on 8 January 2021.

COLOURS IN CHROMOTHERAPY

Colour description	Use of colours in chromotherapy (complementary treatment)
BLUE	
Blue is the coldest colour; it is used in designs that bring to mind purity and responsibility. It evokes a sense of trust, security and honesty. It is good to use it in projects promoting products related to the sea and the sky, as they evoke positive feelings and associations in the recipients. It calms the body, relaxes and makes you focused.	It is a stress-reducing colour and also has mildly soporific properties. It reduces the heart rate and blood circulation and therefore has analgesic properties. It stimulates the nervous system. It is used for inflammatory conditions and illnesses involving fever. It improves metabolism and fights off tonsillitis, earaches and bladder diseases.
RED	
Red is emotionally intense; it is used in the traffic light system as it is very noticeable. Some of its associations include all things that are intense, e.g. energy, positivity, action, stimulation, war, anger, danger, power and courage.	It excites and stimulates the nervous system and raises blood pressure. It helps with flu and colds, back pain, backache, blood diseases and rheumatism. It is not recommended for cardiovascular diseases because, in excess, it causes aggression.
TURQUOISE	
Turquoise has a refreshing yet reflective effect. It boosts sensitivity and creativity.	It relieves mental tension.
ORANGE	
Orange invigorates, warms, boosts energy and restores it. It improves focus, enhances sensory perception and relieves emotional tension. Warm, bright, optimistic, uplifting, energising and stimulating the mind. Orange is often associated with autumn, the change in colour from lighter summer colours to colder ones.	This colour controls the ability to take in food. It regulates blood pressure perfectly. It encourages action. It regulates heart function, relieves symptoms of asthma and epilepsy, eliminates spasms and cures rheumatism. It promotes digestion and weight loss.

Source: T. Stąpór, *Chromoterapia leczenie kolorem*, p. 25.

COLOURS IN CHROMOTHERAPY

Colour description	Use of colours in chromotherapy (complementary treatment)
YELLOW	
Yellow is bright, creative, has a friendly and warm feel and invigorates the mind. It promotes clear thinking and quick decision-making. It is mainly associated with happiness, positivity, energy and sunshine. Too much yellow can make a person feel anxious because it is bright, energetic and active. It can create a feeling of distraction. Therefore, it is a good idea to use yellow with other colours, accentuating only the crucial elements of a design.	It stimulates but does not annoy, gives energy and strengthens weak body processes and nervous immunity. It positively influences the brain, thus improving logical thinking processes, memory and intellectual capacity. It helps treat depression. It boosts and stimulates the digestive system. It is a cure for fatigue, stress, colds and menopause-related problems. It strengthens the muscles, stimulates metabolism and positively affects skin disorders.
BROWN	
Brown creates stability and a sense of security; it is associated with a tendency to hide emotions. In excess, it causes sadness. A predilection for browns can indicate low self-esteem. Peach enhances vitality and energy.	It promotes digestion and can therefore be helpful in weight.
GOLDEN	
Golden invigorates the mind and boosts energy.	It helps fight depression.
WHITE	
It harmonises and provides balance in the body. The sun is the source of white colour, so moderate sunbathing invigorates and strengthens the body. It brings peace, relieves despair, improves mood, ejects negative energy and boosts.	It stimulates the body to fight the disease, boosts immune factors and metabolism, and the formation of red blood cells. It helps cure skin diseases and acne.

COLOURS IN CHROMOTHERAPY

Colour description	Use of colours in chromotherapy (complementary treatment)
GREEN	
Green is a stabilising and levelling colour. It relaxes, calms and keeps physical and mental energy in balance. It eliminates tensions and pains and provides profound peace. Green symbolises balance and harmony and is vital for the entire nervous system. Dark green relaxes, gives hope, soothes conflicts and makes you empathetic to the problems of others. This colour gives a sense of stability and is desirable in designs that show how the product is robust and safe to use.	Plants and greenery accelerate wound healing, improve mood and reduce stress levels and painkiller consumption. Green strengthens the heart, immune and circulatory systems and stimulates the endocrine system. Light green lowers fever and helps fight viral and bacterial infections. Greenery next to a hospital facility makes patients less likely to develop complications and return home faster.
PINK	
Pink evokes optimism and calms emotions.	It cures cardiovascular diseases (e.g. arrhythmia), relieves asthma and boosts the appetite.
NAVY BLUE	
It is a good colour for concentration.	It cures chronic states of fatigue and thyroid and throat diseases.
BLACK	
Black is associated with the unknown and mysterious and with silence.	It supports treating minor neuroses but should be avoided in melancholic or depressive states.

The author analyses the theories of scholars and attempts to answer the question of what colour therapy is: “(...)As reported by D. Campbell, Ch. Muths and D.H. Sun, colour therapy is the art of reintroducing the various colours of the spectrum into the human body to improve health, restore balance and achieve well-being. For this purpose, colour vibrations surrounding the human body through the aura are absorbed into the energy centres (chakras). These vibrations are absorbed through the eyes and skin, and food that enters the endocrine system. Thus, the influence of colours brings the self-steering energies into harmony. This harmony is achieved through the strength and quality of the colours, which directly affects the physical structure of the body and indirectly influences the development of the human personality (...)”⁴⁵.

II.2. Colours in interior design vs human psyche

*All the paintings ever made
are patterns of only three
primary colours*⁴⁶.

Don Fabun

Particularly useful in considering the meaning of colours is the ancient Chinese art of interior design - feng shui. According to it, the colours surrounding people refer to the energy circulating in nature, and the world is filled with *chi* energy. On the other hand, people must strive to retain this energy and acquire as much as possible of it. According to feng shui principles, colours not only have a significant impact on a person's mood but can also change the way they perceive the world. The chi energy is a life force vitally necessary for proper functioning, and with a suitable arrangement of the elements in the home, it can circulate within it gently⁴⁷.

In feng shui, colour in a room is the quintessence of design measures. According to it, the water element includes the colour blue, which brings purification and refreshment to the interior. The relaxing properties of the blue colour work wonderfully in rooms intended for relaxation; accordingly, it can be useful to a person in a bathroom, bedroom or home spa.

Yellow is the colour of joy and warmth. Yellow interiors are bright, optimistic and dynamic and so can create a pleasant, cheerful atmosphere in a room. Yellow promotes closer family ties, which is why it should be used mainly in the living room or dining room, while shades of sun and sand also work very well in the bathroom.

Red is associated with the fire element, symbolising transformation and power. It is considered the colour of luck and success and is associated with the area responsible for

function, meaning and opinion. A darker shade of red perfectly fits the kitchen or dining room as it symbolises prosperity and well-being, while a muted shade of red is very strong and energetic. However, energetic red, full of passion and fervour, also works well in the bedroom, but in this case, a slightly more subdued hue is a better choice still. An excess of this colour can adversely affect the ability to sleep and settle down.

On the other hand, orange can benefit the health of the bronchi and the upper respiratory tract and is suitable for an interior full of harmony. Pink and violet are particularly good for the body, as they have an optimistic effect on a person's mood. Their unusual tone makes you feel safe, calm and relaxed. They are also symbols of family happiness, and so they can be used in the bedroom or living room. The delicate shade of pink adds a pleasant and cheerful touch to any interior. In the feng shui philosophy, the colours closest to nature and associated with the wood element are greens and beiges. Light shades of beige and shades of cream have a soothing effect on an ailing heart and have a cleansing and refreshing effect. They are ideal for a study interior where a person will be able to concentrate, as they also bring solace and tranquillity. White is a symbol of innocence and brightness. White brings calm to the space while expressing the residents' openness to any change at the same time. People who desire spiritual balance and want to see the world around them clearly surround themselves with it. This colour belongs to the metal element, and a balanced amount of it helps with a clear and light life, so it should be used in interiors related to the contact zones⁴⁸.

45. S. Popek, *Barwy i psychika*, Wydawnictwo UMCS, Lublin 2012, pp. 169-170.

46. G. Dryden, J. Vos: *Rewolucja w uczeniu*, Wydawnictwo Moderski i S-ka, Poznań 2000, p. 201.

47. Source: <https://www.westwing.pl/inspiration/aranzacje/kolory-w-aranzacjach/feng-shui-kolory/>, accessed on 8 January 2021.

48. T. Stąpór: *Chromoterapia leczenie kolorem*, Wydawnictwo Astrum, Wrocław 2000, p. 63.

COLOURS IN FENG SHUI

Colour description	Use in interiors
YELLOW	
Yellow is the colour of joy and warmth.	Interiors in which this colour is present are brighter, more optimistic and dynamic. Yellow promotes closer family ties, so it should be used mainly in the living room or dining room. The colours of sun and sand work perfectly in both the living room and the bathroom. In this way, you can create a cosy, warm, homely atmosphere in this intimate room.
VIOLET	
This colour stimulates vitality, inspires respect and stands for dignity and spiritual development. Positive associations with violet include emotionality and motivation for action. The negative ones are grief and violence.	This colour can be introduced into bedrooms and meditation rooms but should be avoided in the kitchen and bathroom.
BLACK	
A symbol of mystery and independence. For Chinese artists, it is the colour of elegance and profound spirituality. Its negative associations include darkness, evil and pessimism.	Black should be avoided in interior design.
BLUE	
Blue represents the water element and brings clarity, refreshment and purification to the interior.	It has soothing properties that work best in the bathroom or home spa. It is easier to relax, feel calm and unwind in blue rooms, so it is ideal for bedrooms. The relaxing qualities of blue are also perfect for resting rooms.

COLOURS IN FENG SHUI

Colour description	Use in interiors
GREEN	
Greens are the colours closest to nature. In the feng shui philosophy, they are associated with the wood element.	Green accents, decorative elements or walls bring vitality, healthy energy and growth to our interiors. This colour has a purifying and refreshing effect. It is perfect for a study space where concentration and focus are important, so use this shade in a boy's bedroom. This colour also brings solace, peace and relaxation, allowing you to forget the hardships of everyday life.
WHITE	
White symbolises purity, innocence and brightness. It is recommended for people who desire spiritual balance and want to see the world around them clearly.	The use of white in the living room gives it harmony and brings peace to the space while also expressing the residents' openness to changes.
PINK	
This colour is commonly associated with love, so it has an optimistic effect on our mood. It is associated with joy and happiness.	A soft shade of pink adds a cosy and warm feel to any setting. Pink is a commonly used colour in a girl's bedroom, and for a good reason. Thanks to its unique tones, it contributes to a feeling of safety and relaxation. This is extremely important, especially for nurseries. Pink is also a symbol of family happiness, so it is worth using it not only in nurseries but also in the bedroom or living room.
ORANGE	
Orange is very healthy, especially for children's illnesses involving the upper respiratory tract and the bronchi. It has wonderful favourable properties - happiness, concentration and intellect.	In some rooms, this colour should be used in accessories rather than as a backdrop, a base for an arrangement. In this way, the interior will not be overwhelmed and will not optically diminish.

COLOURS IN FENG SHUI

Colour description	Use in interiors
RED	
Red is widely regarded as the colour of luck and good fortune. It is one of the colours associated with the fire element and, like it, symbolises transformation and strength, which is why it is associated with career, prestige and reputation.	It is ideal for the kitchen or dining room, symbolising abundance and wealth. It is a very lively and dynamic colour, making it difficult for us to calm down and focus on cooking or eating dinner together, so it is worth choosing a muted shade. An excess of this colour can harm sleep, specifically falling asleep and settling down.
BROWN	
It is the colour of the earth and therefore evokes stability. It symbolises the depth and the roots of a strong tree. It is the favourite colour of many older people who have already established themselves in life. A positive variety of brown is the chestnut colour. It symbolises the opening up of new possibilities and signifies new activity in life.	Brown is suitable for offices but should not be introduced into bedrooms.
GREY	
It expresses the greyness of human existence, sadness and frustration and intensifies the feeling of hopelessness. It can symbolise compromise and balance.	It also has a positive effect when combining opposite colours - white and black. Currently, it is very fashionable in contemporary interior design as it is neutral and complements contrasting colours.

Source: T. Stąpór, *Chromoterapia leczenie kolorem*, p. 25.

II.3. The analysis of current design trends inspired by nature

Nature is one of the main inspirations for contemporary design. For this reason, the plant world is a crucial element of space adaptation. In rooms decorated in the spirit of closeness to nature, people function better, work, learn and relax. It also benefits creativity and reduces absence from work. Contact and a close relationship with it restore emotional balance and calm and rejuvenate and reduce stress. Nowadays, relaxation rooms, so-called chillout rooms, have become popular in offices to improve the quality of work. A report from a study conducted by the American Psychological Association (APA), *The Relative Benefits of Green Versus Lean Office Space*, showed that greenery increased work efficiency in more than half of employees. Potted plants have a positive effect on human health and well-being. By secreting volatile substances also called plant antibiotics, they fight bacteria, viruses and fungi⁴⁹.

In rooms where it is impossible to use actual elements of nature, it is imperative that people take care to make references to it. It can be incorporated into the home in the form of furniture inspired by flora and fauna or natural finishing elements. To display plants, you can use bookcases, wall shelves, hanging pots and pots connected to furniture.

The year 2020 was an important time for the development of design. The pandemic showed that people confined to their own homes felt the need to commune with nature more strongly than ever before. Contemporary interior design inspired by the natural environment has become increasingly close (Fig.25). The Home Office trend, which emerged in 2020, continues to work in conjunction with biophilic design, born from the idea of biophilia popularised by American biologist Edward O. Wilson. It is a way to reconnect it with nature, and events related to lockdown can only reinforce this trend. It now has even more supporters due to its calming effect on the human body.

In 1984, the biophilic design developed the concept of return to nature, which assumes that humans are permanently, subconsciously and originally connected to nature so that they can fully benefit from its healing power.⁵⁰ This idea has attracted the interest of, among others, architects who explore how the use of elements of nature and its processes affects the process of designing marketed products that can be used every day at work and at home, when creating in the biophilic design style. The term biophilia refers to the human fascination with nature and its processes, and living in harmony with nature is the original human heritage. An example of biophilic design style is the *Maggie's Centre* building in the UK (Fig.26). The authors of the project used *Liriodendron tulipifera* because of characteristic features of this species, i.e. its strength and warm colour, as well as the beneficial influence of wood on human psyche. It is well

49. Source: <https://poradnikprzedsiębiorcy.pl/>, accessed on 10 December 2020.

50. E.O. Wilson: *Biophilia, The Diversity of Life*, *Naturalist*, Library of America, 2021, p. 67.

known that communing with wood lowers blood pressure, slows the heart rate and, above all, significantly shortens the recovery process. Wood has more beneficial effects on the overall well-being of humans than any other building material⁵¹.

This style was one of the increasingly popular interior design trends in 2020 and a leading trend in space design. Its main aim was to bring biophilia into digital human life. Biophilic design is one of the trends in interior design that focuses on creating spaces that are as close to their natural environment as possible. It invites nature into home interiors in many different ways, thus affecting human comfort and health. Biophilic design introduces all kinds of references to nature in the form of natural lighting, patterns and materials, potted plants or so-called green walls. Such design is not just about aesthetic forms and shapes or plant design, but it is an opportunity to restore a lost connection with nature. The more biophilic design is present in architecture and interiors, the less stress, physical and mental ailments people have. Better well-being results in higher productivity and creativity, and people who work surrounded by greenery are more action-oriented.

Floral and animal motifs are easiest to use on textiles, however, they can appear in almost every element of interior design. According to the chosen theme, furniture, wallpapers, graphics or wall stickers are able to change each apartment by combining different materials and textures. Nature is associated with energetic, though sometimes neutral and calm colours, which is why earth tones dominate in apartments during this season. Organic style prefers pastels because soft colours work well with biomorphic shapes. Beiges, blacks and browns also fit perfectly into the interior design, but also the livelier ones - such as red and green, appear in the form of accessories.

Modern companies, such as *Amazon*, *Google* and *Apple*, invest in biophilic design elements. The use of natural materials and a variety of stone species is also an important element. Designer Aldona Słapa-Nowacka believes that „biophilic design, besides helping us create a home space we feel good in, is also a very versatile direction. It can be combined with any design trend, but undoubtedly corresponds best with the natural style – especially at the level of using ecological materials and introducing live plants into rooms”⁵².

Furnishing an apartment with such elements, furniture and decorations is provided, among others, by the Spanish brand La Forma. La Forma combines Catalan craftsmanship with nature-inspired design and is famous for producing solid wood furniture. By using organic finishing materials, each piece of furniture made by Catalan woodworkers is unique and different from the rest. As in natural world, no two pieces are alike. Inspirations from the natural world can also be observed in rounded shapes of the furniture, which evoke dunes, stones or waves. Designers of organic style elements

rely on steel, plastic, glass and bent wood. In 2020 Home Office trend, the colours used in fashion and design were inspired by, among others, marine blue which can add an unprecedented dynamic to austere designs. The hues of browns and greens were taken from the beauty of organic and uncommon landscapes.

Contemporary spa buildings and interiors are created in the spirit of wellness architecture, which focuses on how people perceive these places and, more specifically, what effect they have on human well-being and balance of body and mind. These projects are also based on the concepts of biophilic design. Until recently, the architecture of buildings and interior design (not only those in the wellness industry) focused mainly on high aesthetics and interesting, modern forms. Nowadays, a great deal of attention is paid to creating buildings and interiors that have the best possible impact on human physical and mental condition. Proximity to nature, which is the essence of the concept of biophilic design, is intended to help. Designing in harmony with nature, which provides humans with its proximity and beneficial effects, restores their physical and emotional balance.

Roger Ulrich, a professor of architecture at Chalmers University of Technology in Gothenburg, has made a great contribution to the development of wellness architecture. He proved that the sight of nature not only makes people feel better, but also reduces stress and pain. In 1984, he conducted a study which revealed that inpatients who could view a green landscape through their window recovered much faster compared to those inpatients who were deprived of contact with nature. Inpatients who had contact with nature also took fewer painkillers. Confirmation of the therapeutic effect of natural environment in other studies prompted designers to develop concepts that open buildings to green surroundings. While the concept of biophilic design is easy to implement in the case of objects located in the natural environment of provinces or on the outskirts of agglomeration area, it may be more difficult to have direct contact with nature in the urban landscape. Where this is not possible, the greatest emphasis is put on the use of textures, shapes and colours that mimic natural ones. Everything that allows to create a substitute of nature in spa interiors – a large amount of daylight, natural materials, moving water and vegetation, including green walls – is introduced into interiors. In this way, architectural and interior design solutions based on the biophilic design concept can help relax, relieve stress, improve mood and maintain inner balance⁵³. Nowadays, an extremely fashionable trend is Urban Jungle, which was triumphant two years ago. This trend is increasingly spreading, and at least its imitation can be observed in many current modern interiors. This is a genuine shift towards natural solutions. This trend reveals links to exotic nature, and the colour scheme revolves around hues of soothing green and gold. Wallpapers and photograph wallpapers with plant motifs are a way to break the

51. Source: <https://biznes.newseria.pl/komunikaty/maggies-centre-czyli-b1360464577>, 10.10.2019.

52. Source: <https://budownictwo2b.pl/wykanczanie/puls-branzy/50704-biophilic-design-wnetrza-w-zgodzie-z-natura-od-pfleiderer>, 16 November 2020.

53. Source: <https://spaandmore.pl/wellness/biophilic-design-i-architektura-wellness-z-natury-dla-zdrowia/>, accessed on 9 November 2021.

monotony of the interior, they optically enlarge the space and, above all, provide a full experience of communing with nature. The vibe of this trend can be achieved not only with live plants, but also with plant motifs on tiles, textiles and wallpapers. The advantage of Urban Jungle style is the ability to create a complete interior design in a simple way with just a few accessories. This trend is very popular, as it brings positive energy to the interior and, above all, it provides more oxygen thanks to plants. Cushions, carpets or similar items in floral patterns can complement the styling and make the interior look flowery all year round.

Through its beauty, natural world influences the concepts of many famous fashion and jewelry designers. For this reason, one of the most prevailing trends of 2021 was nature and the environment. According to fashion forecasts selected by the *Première Vision* Fashion team, projects inspired by marble structures played a big role in 2020/2021 design⁵⁴. This precious stone, along with its unique abstract patterns, continues to inspire designers. Accessories are often designed as clean and geometric shapes graduated in shades of black and white, evoking natural and polished stones. Khaki and browns, which are associated with forest clearings, tree bark and grain, can pull a person more strongly into a more organic approach to nature. On the other hand, buckles and buttons can imitate the shells of terrestrial organisms, while buttons with amber tones can resemble an animal horn. Imitations of skins in shades of black are decorated with slightly greenish metallic reflections, providing a new interpretation of fantastic animal skins – partly marine and partly terrestrial (Fig.27).

The decorative designs of the AW 21/22 season are defined by serenity and harmony, waves and gentle vibrations of hand-drawn lines mimicking stone structures. Patterns that imitate marble are moving away from soft and pastel shades and their water-coloured versions. Along with distinct red-orange hues, they have a fiery and slightly eccentric tint.

The wonders of nature have inspired a luxurious aesthetic in fashion and design for centuries and they combine modern craftsmanship with the beauty of nature (Fig. 28). Humans search for ethical ways to be fashionable and planet-friendly at the same time. Natural textiles and fibers that are durable and recyclable dominate fashion in this area. It is not just an eco fashion, it is a lifestyle. Currently, social design has become a design philosophy. It is based on creating design of individual nature, taking under consideration predispositions of users and impact on their mental and physical condition.

Although I started creating the collection in 2020, nature in colours is also present in current trends. The 2022 still features colours that allude to earth and sky tones, especially greenery, bringing calm and serenity to the interior (Fig.29). Pastel shades, including ocean pink, breathe hope and optimism into the following year. There are long-

term trends that are defined by timelessness and functionality in addition to the value of nature inspiration itself. However, I see colours and aesthetics as functions. Macro-scale nature also joins the colour trend inspired by the harmony of the natural world. Attention should also be focused on the inspiration of stones and minerals in this scale, which allow the creation of extremely striking patterns in detail.

While looking at the current fashion, which is mainly determined by the above-mentioned *Première Vision* textile fair, one of the current trends for spring-summer 2022 will be the use of khaki shades and shades of yellowed green. This fashion, inspired by dry flowers and dull tones of olive, sage and mint, will draw on nature's colours such as earthy greens, which will often be juxtaposed with stronger, contrasting tones. Materials of this season, such as wool, cotton and sheepskin, will take on original shades of these raw materials (Fig.30)⁵⁵.

II.4. Interior textiles

Textiles have accompanied man since the dawn of time, likely originating in braids made from grasses and other plants. Researchers trace the origins of linen fabric to ancient Egypt⁵⁶.

For many generations, people's everyday lives have been enriched by materials serving different functions in interiors. Apart from their decorative and sacral function, they often served a useful purpose, such as insulating the space in winter. Be they palaces or less affluent spaces, homes were dominated by wool, linen and jacquard fabrics.

Textiles were mostly functional, e.g. in the case of backboards used by the inhabitants as a backrest hung above a bed or a bench, usually created from jacquards and small and large tapestries (Fig.31). Even today, many homes still have such things as cafe curtains in the kitchen or dining room windows, i.e. curtains stretched from the middle of the window. Also popular are the door-hung fly nets which are made of lightweight linen or netting and are used mainly in countryside single-family houses. Long woven rugs that offer you the comfort of stepping on a warm floor are still equally common in interiors. Screens, which once were a quite common interior element used to separate interior spaces and also as a decorative element enriched with beautiful printed materials, remain popular in interiors, too. They are still used in a similar fashion today.

Decorative fabrics were an inseparable element of Polish interior design in the days gone by. They were used to cover walls, framed windows and doors, as well as to decorate furniture. As the home decoration changed, they were replaced with new ones, corresponding to the latest fashion and the owner's taste. The old ones were often lost

55. Source: <https://www.premierevision.com/en/magazine/accessories-for-ss23-lush-nature/>, accessed on 21 March 2022.

56. Source: <https://csw.torun.pl/info/press-room/wielowatkowosc-tkaniny-23164/>, accessed on 11 March 2022.

or occasionally gained a second life after being adapted to a new function. It was not uncommon for them to be made into liturgical vestments⁵⁷.

Even today's homes sometimes have portieres that protect rooms against the influx of cold air. Portieres were mentioned in the works of such poets as Stefan Żeromski and Eliza Orzeszkowa; in her work titled *The Good Lady*, the latter wrote: "Through the half-open portieres, one could see several larger and smaller rooms, also plunged into silence and half-shade⁵⁸". They were also used in 19th-century palaces, e.g. in the neo-renaissance Karol Scheibler Palace in Łódź, which houses restored, neo-style textiles – door portraits whose added value is that they are double-sided.

Other textiles that were found not only in country cottages but also in more affluent spaces include tapestries, which were popular at manor houses in the 16th and 17th centuries, and were often covered with graphic patterns, genre scenes, landscapes and illustrations to match the interiors. Their name comes from the Old French word *tapisser*, meaning "to cover something with cloth". Tapestries had a decorative function, but also a functional one, as they heated the interiors by covering huge areas of the palace walls (Fig.32).

The soffit was also popular in palaces and castles. It was used due to the height of the rooms, which were very difficult to heat. The thick fabrics lowered the ceiling, making rooms warmer during the cold seasons.

One exceptional relic that probably formed part of the decoration of a window, door or bed is a large (135 x 309 cm) rectangular tapestry dated to the early 18th century. It is held at the Museum of King Jan III's Palace at Wilanów and remains a magnificent example of the decoration of a Baroque residence (Fig.33).

In most cases, the textiles have deteriorated over the years, including due to the constant exposure to sunlight, and have been preserved only in old photographs. Today, beautifully restored printed wall textiles of this type can be seen today at the Palace in Rogalin, among others places. The fabrics were revitalised with the utmost care by the Textile Research Institute and the prints were made at the W. Strzebiński Academy of Fine Arts in Łódź.

The cotton fabric that best reflects the spirit of the times of this structure is the one printed with the carnation motif. Located in Helena Raczyńska's Bedroom, it stands out for its beautiful, saturated colours of intense red and pink. The floral motif dominates both the walls and the embroidered French tulle hung in the windows. The next textile is called *Bouquets of Roses*; located in Róża's bedroom, it is subtle, delicate and features minimalist colours (Fig.34). It was made using the hand screen printing method and its design was created by Małgorzata Lambrecht-Reich. Most Palace interiors are furnished

with decorative textiles of the highest quality, which is visible at first glance. It is they that make the rooms appear richer and have their own original and refined character⁵⁹.

Due to my interest in textiles, especially the old, historical ones, I decided that my collection of printed textiles should also be destined for a place "with soul" like this one – for a SPA space located in the historic park of the Nieznanice Palace.

57. Source: https://www.wilanow-palac.pl/splot_historii_w_barokowej_tkaninie.html, accessed on 11 March 2022.

58. E. Orzeszkowa, *Dobra Pani*, Greg, Kraków 2008, p. 25.

59. M. Lao i E. Witzak: *Tkaniny dekoracyjne do rewitalizowanych obiektów zabytkowych*, Textile Research Institute, Łódź 2016, p. 15.



NATURE WITHOUT BORDERS

03

ORIGINAL COLLECTION OF
PRINTS ON TEXTILES

2022

Chapter III

ORIGINAL COLLECTION
OF PRINTS ON TEXTILES

Design intent and the process of creating the artwork
Collections destination and site analysis
Meditation accessories and exercise accessories –
collection description
Image shoot

III.1. Design intent and the process of creating the artwork

The *Nature Without Borders* collection consists of 3 parts: 6 large format textiles, 3 painting cycles (plus a complementary one) - wall panels and a multi-assortment set of accessories for rehabilitation, massage, yoga and meditation.

The interdisciplinary concept of the dissertation is founded on a combination of various elements. The design oscillates around several disciplines: photography, painting, textile printing, psychology, and chromotherapy. My intent was to use print and painting techniques in a multi-faceted manner in the process of designing and creating textile interior elements. For this reason, I have attempted to combine the discipline/field of design arts with fine arts within a single, coherent work.

LARGE-FORMAT TEXTILES

Design process

The starting point for expressing the design goal was the author's photographs presenting the nature of the Polish Jurassic Highland and its abstract textures. In my print designs I 'quoted' elements of nature by using photographs of nature motifs at different scales. Print designs were created on the basis of the observation and analysis of the structures, forms and colours of rocks, plants and water. To prepare the print designs, I computerised the previously created painting works. After conducting the research analysis, I chose the most appropriate frames from the resulting images.

The next stage was to transfer them to the Adobe Photoshop graphic design programme, which enabled me to convert them and create print designs. In the designs, I used options to merge and combine individual details of photographs and paintings. The graphic design software allowed me to sharpen, bring out and emphasise the Jurassic nature motifs. It was also possible to increase the colour saturation of the work, highlight the contrast and merge individual images. I also used the blending option to overlap individual fragments. The 'brush' tool played an important role in preparing the patterns, thanks to which I could enrich the compositions with graphic structures. The print designs were ordered in terms of orientation, movement and colour changes.

Then, using the collage method, I merged various digital, micro and macro photographs and painting sketches to create single-weave and repeat patterns. As a result, the designs of 6 large-format textiles, 2 in each of the series: *Source I*, *Fern I* and *Rock I*, were created. Then, I carried out material tests to see which base would be best for printing.

Execution process

Of the many printing methods, I chose the digital technique because it is characterised by very good photographic reproduction, high resolution, saturated colours (CMYK palette) and high durability. The printed fabrics are smooth to the touch and the patterns are very expressive, while the prints do not change colour, fade or crack after time of use. Since the collection is intended for relaxing interiors, I have chosen the colours and fabric types accordingly. The designs were printed on polyester, which is used in the sublimation process.

It is worth mentioning that (...) digital or sublimation printing is a thermal transfer technology; a method of transferring patterns or images onto polyester fabric⁶⁰. The first step in the process is to print the transfer paper. The image that has been transferred onto paper is a mirror image of the final print on fabric. The second stage involves placing the paper together with the material in a thermal press and subjecting it to a very high temperature (around 155-185 degrees) and high pressure. This results in the transformation of the polymer from a solid into a gas when the pattern is transferred to the fabric. This is a very fast and ecological method – the material does not have to be washed, so there is no water consumption, and the inks themselves are not harmful to the environment. The water-based inks used for printing are "environmentally friendly" and are thus suitable for children's interiors and SPA spaces.

MEDITATION ACCESSORIES AND EXERCISE ACCESSORIES

Design intent, creation process

Searching for my own language, appropriate for textiles, I have consciously introduced various patterns, materials and execution techniques into my proposals. When designing the compositions of the textiles, I tried to pay attention to the relations of the motifs, their scale, directions and colours. The printed textiles were used to make accessories.

For me, inspiration from nature means not only patterns but also the materials I use to create accessories. The natural fillings perfectly match the forms and patterns of the prints, complement the styling and bring the natural world one step closer. The raw materials I use are not just a detail. By using them I can reduce the use of synthetic materials and make my accessories collection closer to sustainable fashion.

From the very beginning, my idea was to create elements that were safe, healthy, ecological and durable. The materials used were the basis with great creative possibilities, variety of solutions and applications. The multi-assortment collection includes a total of

60. Source: <https://drukarkia3.pl/druk-sublimacyjny-wyjasniamy-tajemnice-popularnosci-tej-metody-druku/>, Accessed on 11 December 2021.

38 elements, which include: *Spring III* - 12, *Rock III* - 19 and *Fern III* - 7 elements. In order to make textile accessories, I have used natural fillings which additionally perform health functions for the body. Organic buckwheat hulls, cherry seeds or white mustard have anti-inflammatory, analgesic and regenerative properties.

Execution process

Prints for the multi-assortment collection were also made using the sublimation printing method. The patterns were applied to soft and transparent materials of various thicknesses and character, such as fleece, poplin, cotton fabric, silk, upholstery fabric, industrial felt, cretonne and striped chiffon. The multi-assortment collection was inspired primarily by photographs and paintings featuring motifs from the Polish Jurassic Highland. The prints were designed in a computer program using a blending option, they are a combination of selected motifs from the paintings and details from the photos. The elements were made by hand and machine sewing.

Function

I have prepared, among other things, cushions and other items made of natural and synthetic textiles, filled with healthy hulls obtained from organically grown cereals in the Polish Jurassic Highland. They soothe the nerves and make it possible to feel an even closer contact with nature. In several elements I have also used filling with wadding, which is a polyester non-woven fabric with anti-allergenic properties. It is also very breathable and does not absorb moisture. I have also used a delicate and elastic sponge which easily returns to its original shape when squeezed and adapts very well to the position of the spine.

Elements of the collection are suitable for meditation and for people who practice calming techniques. For example, the buckwheat hull mattress improves blood circulation in the skin, prevents rheumatic pains and helps tense muscles to relax. Meanwhile, yoga cushions contain a variety of fillings - the amount of which can be adjusted, customising the firmness of the seat to individual needs. Yoga cushions - they have a health-promoting effect, as well as help to achieve harmony with nature. They are an excellent tool for maintaining the right posture during exercises, their specific shape provides comfort, relieves knee and ankle joints.

The U-shaped pillow is filled with buckwheat hulls and maize grains. It provides comfortable support for the pelvis while sitting. It is ideal for people with flexible hip joints who do not require high support. The wider shaped sides provide good support and positional stability. It is recommended for lotus and semi-lotus positions. The acupuncture

mat is also very useful for health as it has a stimulating effect on the body. It is helpful in case of problems with poor circulation, headaches, digestion, tiredness, pain in the back, neck, spine, sciatica, muscle tension and cramps. It also stimulates the functioning of organs responsible for the secretion of happy hormones.

The natural and ecological buckwheat hull cushion gives proper support to the head, effectively relieves muscle tension in the upper part of the spine. It perfectly adapts to the body, thanks to which it has the properties of anatomical cushion. It is especially recommended to people with allergies. Cushion with spelt filling spelt filling supports correct position of the head and the spine during rest. The full health-promoting properties are also provided by organic hulls which are light and delicate, which has a positive influence on the comfort of sleep. They help in combating rheumatic pains, migraine, insomnia and bring a state of blissful relaxation.

Types of fillings used in the work:

Grains	Organic hulls
Cherry seeds	Buckwheat hulls
White mustard	Spelt hulls
Maize	Millet hulls

MODULES/PANELS - painting compositions

Design intent, creation process

While creating a collection of prints on textiles, I worked on the second artistic and design stage which resulted in painting compositions. The completed works were used as mobile wall-mounted modules for the interior. The works cover three cycles: *Spring II*, *Fern II* i *Rock II* and complementary *Untitled*.

In addition to photography, an important role in preparing the compositions was played by the all-over method of painting, represented by Jackson Pollock. I was intrigued by the free process of creating works without a beginning nor end and by paintings which are fragments of reality that can be continued beyond the border of the composition. In this trend, I can find references to the assumptions of my collection *Nature Without Borders*. Apart from the passion for nature, I am referring to the interpretative freedom of

the creation process itself. I produced a set of several dozen various painting compositions which complement the collection.

For the purposes of the study, sketches created by action painting were used. Experimenting with different methods of spreading paint on canvas, bases and binding media made it possible to accurately reflect the structure of rocks or the effect of water on the surface. By realising the assumptions of the composition in the paintings, chance merged with expressive movements and intuition in a controlled manner. Organic patterns integrated with textures, seamlessly transitioning from one form to another.

In the course of creating the painting compositions, three main cycles emerged. In shades of blue, under the name *Spring II*, 45 pieces were created in the format 30 x 30 cm. In shades of green – *Fern II*, 9 compositions were realised in the format 60 x 60 cm; they combine painting and printing. In greys and browns, entitled *Rock II*, 28 pieces were created in the format 40 x 40 cm. The last, complementary, series in the colours of autumn consists of 16 compositions in the format 40 x 40 cm. The resulting works suggest structures and textures of rocks, ferns and karst springs of the Polish Jurassic Highland region. Each of them is composed of interactive patchwork modules which can be freely arranged depending on the interior architecture and the predispositions or preferences of the viewer. The square-shaped elements can coexist as a collection or function independently. The works were painted intuitively, without the possibility of repeating a given pattern. They make use of abstract open, asymmetrical and dynamic compositions. Each of these paintings was organised according to the orientation, movement and colour changes. The resulting texture type relates not only to nature, but can also be associated with fabric. It is a conscious search for materials and media which go beyond the classic techniques of broadly understood textile printing.

Considering the design assumptions, whose intention is to benefit human health, one of the three cycles was complemented with a printed mandala motif. The mandala is a harmonious combination of a circle and a square, where the circle is a symbol of the sky and infinity, and the square represents the sphere of 'interiority' of that which is related to man and the earth. Mandalas develop a person's imagination, eye-hand coordination, help with focus and concentration, soothing of emotions and relaxation. The mandala shape in various kinds of spirituality-related traditions may be used as a general tool for mental training. In the mandalas I designed, I used fragments taken from the paintings that depict motifs from nature. I selected these structures based on selections and thoughts about aspects that are related to meditation, inner concentration and intuition.

Mandala creation is often understood as an active meditation for personal growth. According to Jung, this process has therapeutic properties. This prominent thinker wrote about mandalas: „The fact that images of this kind have under certain circumstances a considerable therapeutic effect on their authors is empirically

proved and also readily understandable, in that they often represent very bold attempts to see and put together apparently irreconcilable opposites and bridge over apparently hopeless splits. Even the mere attempt in this direction usually has a healing effect, but only when done spontaneously”⁶¹.

Execution process

The chosen painting technique combines art therapy and the possibility of referring to a limitless composition. I made sketches using the pouring method used by some therapists during classes with people who have emotional and psychological problems, often often opening up through art. The method involves pouring paint together with the appropriate binders onto a chosen ground, and by combining colours it gives the possibility of obtaining patterns of marbles, rocks, springs and other elements of nature. During material tests, I chose different textiles and painting techniques, then selected those materials that would work best with this way of painting.

To complete the painting compositions, I used screen printing, with which I applied the mandala motifs. I consciously used the classic print (screen printing), which ensures permanent covering of the pattern on the textile. Although screen printing is one of the oldest printing methods, it is used in many industries, from advertising to labelling of finished products in production companies. This method can be used to print on all flat surfaces such as paper, cardboard, textiles, clothing, metal, glass, rubber and many others.

The mandala patterns were created by combining different graphic operations. The scale of the motif was reduced and adapted to the size of the canvas composition, and then applied as another layer on the coloured spots. The pattern was taken from a motif that appeared in particular paintings. The colours of the painting were simplified, minimised and the most contrasting ones extracted in a computer program. Then they were processed into a fine screen (halftone), which was printed in the format of the painting onto carbon paper, from which the screens were created. The final choice of the density of the halftone was preceded by material tests in order to select the right density of the screen and to avoid paint spillage. Unlike digitally produced textile collections, mandala prints are unique. Each painting is different, one of a kind. The compositions are the result of combining graphics with coloured spots.

61. C.G. Jung: *Czerwona księga. Meandry kultury*, VIS-A-VIS Etiuda Publishing House, 2020, p. 323.

III.2. Collections destination and site analysis

THE NIEZKANICE PALACE

The original collection *Nature Without Borders* is intended for the interior of the spa in the Nieznanice Palace – an over century-old residence located in southern Poland. Dating back to 1917, the building is located near Częstochowa, a place that is close to my heart ever since I was a child.

In 1989, a conservator entered the whole property into the register of monuments of the Częstochowski Voivodeship. In 1997, the owners of the palace began a major renovation of the building, cleanup of the park and the adaptation of the whole estate into a catering, hotel and tourist operation. In the palace hall, there is a preserved blue lounge with a tiled fireplace, beautiful panelling and a balustrade crowning the first-floor stairs. A space for relaxation is situated here, the so-called chillout room, which is also located in the hall and surrounded by very unique plants. The windows and external ornaments under them are also historic and the exposed beams in the loft were integrated into the design of the conference room. The damaged walls in the rooms were covered with patina using the so-called Polish sponging, a technique of painting walls which came from the Mediterranean countries. It consists in covering walls with beeswax mixed with pigment and solvent in various artistic ways. Inside the palace, you can admire textiles collected by the owners during their exotic trips around the world, namely tapestry, coverlets, textiles from Nepal, brocades from India, patchworks from China and Tibet, kilims from the East (Bukhara)⁶².

On the lowest level of the building, there is an intimate spa space decorated in Moroccan style where treatments to restore balance and harmony are provided. These include jacuzzi baths, Finnish sauna and different types of massage, such as ayurvedic warm oil massage, Ka-Ba-Ma massage for particularly stressed individuals and Chinese bubble massage. The Lomi Lomi massage, which combines touching and dance, is very popular here. Treatment is also provided in the beautiful park with hundred-year-old trees and a scenic pond, including lithotherapy, alternative medicine practices and therapy using energy from rocks. It is a method of relaxation based on the belief in the energising and healing power of precious and semiprecious stones. Stone therapy has been practised since ancient times, including in Greece, India, and the Far East.

Colour combinations are also used to achieve the desired therapeutic effect during spa treatments. Treatments are always accompanied by aromatherapy and, most importantly, colour therapy. Meanwhile, the floating also offered here is free-floating while lying in supersaturated salt solution. The room is tranquil, no external stimuli reach the person. The light has a specific frequency and colour, which is an additional element of

the therapy. Another treatment which uses colours is opening the chakras, i.e. exposing different energy centres in the body to the right colours. The light is emitted by crystals so the treatment combines elements of lithotherapy and chromotherapy. The aim is to balance the internal energy and heal the body and spirit.

PRESENTATION AND USE OF TEXTILES

The collection of printed textiles was designed for the interior of the spa in the Nieznanice Palace because of its location, charm and rehabilitation facilities. The relaxation rooms face the forest of the Polish Jurassic Highland where yoga classes take place regularly.

When attempting to arrange the space for therapy, the main aim was to capture the relationship between design and nature. I deliberately arranged each set in a specific order, dividing the collection into zones, i.e. a massage parlour, a space to relax after treatments, a place for meditation and for yoga. The fabrics function as transparent walls and breathable screens, and with open windows, they become a part of the forest. They were inspired by the natural bankline of the pond situated in the Palace's park. Observing this irregular and delicate line influenced the vision of the perfect shape for displaying large forms that exude peace.

The doctoral project was presented as an installation composed of printed textiles placed in the spa. First, the large-format works were displayed in the context of the building's architecture. The second arrangement option was the open space intended for practising yoga. Here, the collection was presented as a free artistic and design expression in harmony with the surrounding space. When arranging the textile compositions inside, attention was paid to creating separate zones, relations between motifs, their scale, trends and colours. Individual sets were included in different zones. The *Spring I* collection was placed in the massage area. On the other hand, the *Rock I* collection was displayed in the relaxation section in front of the saunas. The collection from the *Fern I* collection was placed in the main area featuring a graduation tower.

It was taken into consideration that according to the idea of biophilic design the textiles should give the visitors the impression of contact with nature. This effect was achieved by using large, transparent panels that serve as screens, merging the interior with the surrounding forest. Various activities are often arranged in these rooms (e.g. summer massages, open-air yoga), thus taking the spa zone outside. Other important factors, apart from the visual contact with the elements of nature on the textiles, are subtle airflow and suitable air quality in the rooms, as well as the light which enhances the perception of patterns and changes in the time of day and year. Auditory stimuli are also not without significance, therefore music based on nature sounds is wel-

⁶² Source: <https://meteor-turystyka.pl/palacnieznanice,nieznanice.html>, accessed on 9 November 2021.

come in the spa zones. All factors which reflect the circumstances present in nature are important.

PRESENTATION AND USE OF TEXTILES

After arranging the textiles in the interior, the option to divide the rather large spa space and isolate three sectors: for massage, for meditation and for relaxation by the sauna, played a crucial role. Thanks to the use of the textiles, these zones became more ambient and cosy so the people undergoing treatment and relaxing can feel the atmosphere that is conducive to rest. People meditating in the space demarcated by large-format textiles can focus on clearing their minds and working through their emotions and stress. According to the yoga workshop participants, the most favourable motifs during meditation are fern prints. They said that the colour green promotes relaxation. Plant motifs with organic patterns made the space for meditation cosy and pleasant which helps to take a break from everyday life. An additional and important role is played by the transparency of the textiles thanks to which the enclosed spaces are not fully darkened and daylight can pass through, which positively influences psychological comfort and emotions.

PRESENTATION AND APPLICATION OF PAINTING COMPOSITIONS

The main object is complemented by modular painting compositions divided into three collections. The collection entitled *Fern II* is placed in the spa area, where there is a graduation tower and armchairs for relaxation. It is not without reason that the paintings from this collection hang in this place, the compositions depict mandala motifs, the observation of which enhances tranquillity and relaxation. Paintings from the *Rock II* and *Spring II* collections were presented in the palace hall. They have both calming and decorative function.

PRESENTATION AND USE OF ACCESSORIES

The multi-assortment collection is a line of products whose health benefits can be enjoyed by yoga, meditation and massage practitioners. They are pleasant to the touch, change muscle tension thanks to the natural filling of buckwheat hull, which adapts to body temperature, stimulates microcirculation and peripheral circulation. Bolsters for yoga practice ensure safety and help to position the torso correctly, when performing many lying asanas.

III.3. Meditation accessories and exercise accessories – collection description

PROJECTS

The *Spring III* collection is inspired by underground waters - karst springs in the region of the Polish Jurassic Highland. It is dominated by cool colours. This collection was designed for the massage area and other spaces.

The *Spring III* collection includes:

Bolster

Dimensions: 50 x 15 cm

Material: silk, poplin, cotton fabric

Filling: foam

Technique: machine sewing

Purpose: for sleep, relaxation and exercise

Bolster

Dimensions: 40 x 15 cm

Material: silk, poplin, cotton fabric

Filling: buckwheat hull

Technique: machine sewing, hand sewing

Purpose: for sleep, relaxation and exercise

Mattress

Dimensions: 85 x 45 cm

Material: poplin, cotton fabric

Filling: buckwheat hull

Technique: machine sewing, hand sewing

Purpose: spine support

Cushion

Dimensions: 45 x 45 cm

Material: silk, cotton fabric

Filling: foam

Purpose: lumbar support

Cushion

Dimensions: 45 x 45 cm

Material: silk, cotton fabric

Filling: foam

Material: poplin, cotton fabric

Filling: buckwheat hull

Technique: machine sewing, hand sewing

Purpose: spine support

Cushion

Dimensions: 45 x 45 cm

Material: silk, cotton fabric

Filling: foam

Purpose: lumbar support

Cushion

Dimensions: 45 x 45 cm

Material: silk, cotton fabric

Filling: foam

Technique: machine sewing, hand sewing

Purpose: for meditation

Bag (24 pcs)

Dimensions: 20 x 15 cm each

Material: poplin, cotton fabric

Filling: buckwheat hull

Technique: machine sewing, hand sewing

Purpose: for rehabilitation

Mattress

Dimensions: 100 x 200 x 10 cm

Material: upholstery fabric, cotton fabric

Filling: foam

Technique: machine sewing, hand sewing

Purpose: for massage

Mat (2 pcs)

Dimensions: 100 x 100 cm each

Material: industrial felt, cotton fabric

Technique: machine sewing, hand sewing

Purpose: for meditation and exercise

Towel (2 pcs)

Dimensions: 98 x 50 cm each

Material: polyester

Technique: machine sewing

Purpose: for massage and sauna

Seat

Dimensions: 90 x 90 cm

Material: poplin, cotton fabric, plastic

Filling: wadding

Technique: machine sewing, hand sewing

Purpose: for meditation

Maharaja seat (2 pcs)

Dimensions: 60 x 20 cm and 35 x 10 cm

Material: cretonne, cotton fabric

Filling: wadding

Technique: machine sewing, hand sewing

Purpose: for yoga and meditation

Bolster

Dimensions: 40 x 10 cm

Material: cotton fabric

Filling: buckwheat hull

Technique: machine sewing, hand sewing

Purpose: for sleep, relaxation and exercise

Mattress

Dimensions: 70 x 50 cm

Material: poplin, cotton fabric

Filling: white mustard seeds

Technique: machine sewing, hand sewing

Purpose: spine support

Cushion (2 pcs)

Dimensions: 40 x 40 cm each

Material: silk, cotton fabric, wood

Filling: buckwheat hull

Technique: machine sewing, hand sewing

Purpose: for massage

Cushion

Dimensions: 45 x 45 cm

Material: velvet fleece, cotton fabric

Filling: foam

Technique: machine sewing, hand sewing

Purpose: for meditation

Cushion

Dimensions: 45 x 45 cm

Material: velvet fleece, cotton fabric

Technique: machine sewing, hand sewing
Purpose: for meditation

Bag (24 pcs)

Dimensions: 20 x 15 cm each

Material: poplin, cotton fabric

Filling: buckwheat hull

Technique: machine sewing, hand sewing

Purpose: for rehabilitation

Mattress

Dimensions: 100 x 200 x 10 cm

Material: upholstery fabric, cotton fabric

Filling: foam

Technique: machine sewing, hand sewing

Purpose: for massage

Mat (2 pcs)

Dimensions: 100 x 100 cm each

Material: industrial felt, cotton fabric

Technique: machine sewing, hand sewing

Purpose: for meditation and exercise

Towel (2 pcs)

Dimensions: 98 x 50 cm each

Material: polyester

Technique: machine sewing

Purpose: for massage and sauna

Seat

Dimensions: 90 x 90 cm

Material: poplin, cotton fabric, plastic

Filling: wadding

Technique: machine sewing, hand sewing

Purpose: for meditation

Maharaja seat (2 pcs)

Dimensions: 60 x 20 cm and 35 x 10 cm

Material: cretonne, cotton fabric

Filling: wadding

Technique: machine sewing, hand sewing

Purpose: for yoga and meditation

Bolster

Dimensions: 40 x 10 cm

Technique: machine sewing, hand sewing

Purpose: for meditation

The *Rock III* collection is inspired by outliers in the Polish Jurassic Highland region. It is dominated by cool colours with warm elements. This collection was designed for the relaxation and meditation section and other spaces.

The *Rock III* collection includes:

Bag (15 pcs)

Dimensions: 25 x 20 cm each

Material: velvet fleece, cotton fabric

Filling: buckwheat hull

Technique: machine sewing, hand sewing

Purpose: for rehabilitation

Maharaja cushion(2 pcs)

Dimensions: 60 x 15 and 40 x 15 cm

Material: poplin, cotton fabric

Technique: machine sewing, hand sewing

Filling: wadding

Purpose: for yoga and meditation

Bag (24 pcs)

Dimensions: 20 x 15 cm each

Material: cotton fabric

Filling: buckwheat hull

Technique: machine sewing, hand sewing

Purpose: for rehabilitation

U-shaped pillow (2 pcs)

Dimensions: 40 x 30 and 45 x 30 cm

Material: poplin, cotton fabric

Filling: mustard, corn

Technique: machine sewing, hand sewing

Purpose: yoga cushion overlay, buttock support

Bolster

Dimensions: 50 x 15 cm

Material: linen, cotton fabric

Filling: foam

Technique: machine sewing, hand sewing

Purpose: for sleep, relaxation and exercise

The *Fern III* collection is inspired by the flora of the Polish Jurassic Highland region, especially the clubmoss, a variety of fern. It is dominated by cool colours with warm elements. This collection is designed for the garden and park space, the main hall with the graduation tower, and other spaces.

The *Fern III* collection includes:

Bolster

Dimensions: 35 x 15 cm

Material: poplin, cotton fabric

Filling: foam

Technique: machine sewing, hand sewing

Purpose: for relaxation and exercise

Bolster

Dimensions: 50 x 15 cm

Material: striped chiffon, cotton fabric

Filling: foam

Technique: machine sewing, hand sewing

Purpose: for sleep, relaxation and exercise

Bolster

Dimensions: 50 x 15 cm

Material: cotton fabric

Filling: foam

Technique: machine sewing, hand sewing

Purpose: for sleep, relaxation and exercise

Mat (12 elements)

Dimensions: 115 x 50 cm

Material: poplin, cotton fabric

Filling: buckwheat hull

Technique: machine sewing, hand sewing

Purpose: for meditation, massage and rehabilitation

Mat (2 pcs)

Dimensions: 100 x 100 cm each

Material: industrial felt, cotton fabric

Technique: machine sewing, hand sewing

Purpose: for meditation

Bolster

Dimensions: 50 x 15 cm

Material: striped chiffon, cotton fabric

Filling: foam

Technique: machine sewing, hand sewing

Purpose: neck and foot support, for exercise

III.4. Image shoot / reproduction

The image shoot of the *Nature Without Borders* collection took place in July 2021 both in the older and newly built parts of the spa at the Nieznance Palace. The shoot used rooms intended for classic massage, Thai massage, relaxation massage, hot stone massage and Shiatsu massage. The graduation tower located in the main part of the site played an important role in the shoot. This structure made of wood and blackthorn branches, serving as an inhaler, made it possible to present large-format textiles in an interesting way. The large, glazed hall overlooking a charming landscape garden with original Jurassic flora gave me the opportunity to take pictures of the accessories for yoga and meditation.



NATURE WITHOUT BORDERS

04

RESEARCH ON THE THERAPEUTIC ASPECT
OF THE DOCTORAL THESIS

2022

Chapter IV

RESEARCH ON THE THERAPEU-
TIC ASPECT OF THE DOCTORAL
THESIS

Research methodology
Interpretation of the research survey
Experts' opinions concerning the issue of the doctoral thesis

The main objective of the research described in this thesis, entitled *Nature Without Borders-the Therapeutic Aspect of Natural World Motifs and Their Colours in the Collection of Printed Textiles*, was to develop a set of textile patterns and interior elements which could have a positive effect on the mood of the viewer. This assumption involved an attempt to raise awareness about designing the space around a person.

In the dissertation, key importance was attributed to studying the influence of nature on the human psyche by identifying colour preferences resulting from nature observation. The main thesis of the paper was: Do colours in a person's environment affect their mood, can they have a relieving and healing function and can they be responsible for health improvement?

The supporting thesis was the question: How do natural origin colours and textures affect the mood of the viewer? Finding such relationships creates a premise for further analysis in order to determine the answer to the question: can the study of the relationship between human and nature have an influence on and application in designing prints on textiles?

IV.1. Research methodology

Research on colour preferences, motif selection and execution method selection was conducted by means of a survey. The research results were analysed in order to determine which patterns and colour ranges will work best. In the next stage, other research methods were used to obtain the material that would serve as the basis for the theoretical study and solving the scientific problem posed. These included intuitive and observational methods as well as comparative methods.

The intuitive method was used to select the research topic. The observations made it possible to describe the phenomena that occurred and produce scientific insight. Meanwhile, the critical analysis allowed to create the research background to present the topic in question on the basis of the knowledge available in the subject literature.

The thesis also makes use of the observational method through constant contact with the natural environment for the purpose of data collection, observing nature during different seasons and weather conditions from a long term perspective (for 3 years). Simultaneously, the behaviour of the people who were in contact with nature was observed and their response to the colours, structures, shapes and textures of plants originating in the area of the Polish Jurassic Highland was analysed.

Activities

In the beginning, I identified the topic and scope of the doctoral dissertation and defined the research problem. Then, I collected the necessary information, i.e. analysed the current trends in designing patterns on textiles, held a conversation with a psychologist as well as established cooperation with an interior designer and a yoga instructor from the Polish Jurassic Highland.

Thereafter, I conducted material tests, consisting in testing different types of textiles and means of execution to determine the printing method. I took further photographs of the Jurassic nature in order to search for the style of the collection. I visualised proposals for prints and interior design elements, prepared a bibliography and analysed publications in the field of design, art and colour therapy.

In the course of my work, I chose appropriate means of expression and methods of execution, suited to the collection's theme. I also did a photoshoot featuring the nature (ferns, rocks, springs) of the Polish Jurassic Highland area at various times of the day and chose the best frames. Then, I created painting compositions using the pouring technique based on the hand-picked most interesting photographs. I also made a panel from the paintings combined with screen prints, which served as a decorative element and a complement to the printed textiles.

In the subsequent stage of work, I prepared a general research outline and a detailed survey on the types of patterns and colour ranges regarding the expectations of respondents. In the next phase, I created a collection of printed textiles with different functions, decorative painting forms and exercise accessories. I presented the final doctoral collection as a multi-element installation set-up in the relaxation area. In the final stage, I summarised, described and documented the collection.

IV.2. Interpretation of the research survey

Presentation of survey results

The research technique used was a survey which was completed and returned by 150 people. The research was carried out in 2021 using the modern online software Survio, among both men and women, in different age groups (18-30; 31-40; 41-50; 51-60; over 60). 48.4% of women and 51.6% of men participated in this survey. The highest number of answers, 68, were given by people aged 31-40 and 44 by people aged 41-50. In addition to anonymous respondents, it was also filled in by participants in massage courses, yoga workshops, and seniors receiving wellness treatments. The survey was also carried out by members of two groups, Jurajscy

Włóczykije and Miłośnicy Jury Krakowsko - Częstochowskiej, as well as artists creating in Jura. By filling out the survey, participants were also able to see images of nature from the region. The questions asked were closed, open, single-choice and multiple-choice. During the survey, respondents answered questions concerning, among other things, spending time in nature as well as using therapeutic treatments. They also addressed feelings during contact with nature, colour ranges, the influence of nature's forms and colours in the interior and activities for health.

After analysing the survey, it turns out that 36.9% of people have daily contact with nature, i.e. they are often in the park, forest or garden, and only 10.8% occasionally and once a month. Words that have a positive effect on respondents are forest (75.8%), spring (55.4%) and stream (40.1%).

The analysis of the survey results suggests that most people are influenced by the sounds of nature, 97.5% of the respondents feel the need to be in contact with nature and 95.5% experience a better mental state and well-being when in contact with nature. It turns out that 94.9% of respondents perceive nature as reducing fatigue and boosting energy and 86.6% feel calm/soothed in forests and parks. Plant elements of the Polish Jurassic Highland that have a positive impact on respondents' imagination are ferns (62.4%), succulents on a rock (38.9%) and moss (38.2%). For the majority of people surveyed, colours affect their mental condition, the colours of nature have a great influence on their mood and have a calming effect. The choice of colours for an interior is important and the colour that is associated with a haven of peace is green. Contact with it helps 64.3% of people to relax mentally and 33.8% to regain emotional balance. This colour also has a positive effect on the heart, regulates circulation and deepens breathing by relaxing the chest. When indicating their favourite colours, 20.4% of people also chose orange and violet, while the interior textures that are close to the respondents are a wall of greenery, wood and stone.

The most preferred motifs relating to nature, according to the survey, are - organic motifs, i.e. wood, stone, a wall of greenery. For 94.9% of people, natural materials in the interior give a sense of harmony. When asked about the colours and textures used in a room, which are derived from nature, and their possible ability to foster tranquillity and imitate carefree relaxation in nature, as many as 95.5% of respondents gave a positive answer. Some respondents find that the most functional interior textiles are 62.4% polyester, 38.9% cotton and 20.4% linen. 85.4% of people believe that a natural cushion filling, i.e. buckwheat hull or white mustard gives more health benefits than a synthetic material.

After analysing the survey, I found out that the colours of the flora characteristic of the Polish Jurassic Highland have a calming and energising effect on 68.2% of the participants. Meanwhile, 96.8% said that Jurassic landscapes can be used in textile design and interior styling.

Collecting the results obtained, as well as introducing the conclusions, my own preferences and experience were incorporated into the design process. The survey helped me to decide on the use of appropriate textiles, patterns, textures and colours. The survey reinforced my belief that nature has a positive effect on the human body. It also confirmed my concerns about respondents' different views on materials, i.e. polyester.

Consequently, I decided to use as varied materials as possible in the collection - both artificial and natural. The results of the survey also reinforced my belief that a design proposal consistent with my assumptions and research findings can have a positive effect, and that colours, motifs and structures of the Polish Jurassic Highland will be suitable for a relaxing interior. All the information gained through the research has been considered in the execution of the doctoral collection.

IV.3. Experts' opinions concerning the issue of the doctoral thesis

Taking into account the therapeutic aspect of the collection, I reviewed the meaning of this word, understood as „aimed at restoring health, used to cure; curative”⁶³.

To complete the study, I asked for the opinion of selected experts: a psychologist, an interior designer and a person who conducts yoga classes in the area of the Polish Jurassic Highland. Psychologist Agata Nowak analysed the collection in a meaningful and philosophical context. Each element of the collection was assessed, starting from symbolism, inspiration, through the process of creating the works, to the effects achieved. According to the psychologist: “(...) A room with this type of work can protect against fatigue or professional burnout. People who have intuition as their first cognitive function - and such people often work in advertising agencies - can see things like artists, so they will see not only images, but they will be able to connect themselves inspiringly with the world of the depicted images. It is a therapeutic rescue, a therapeutic SOS (...)”.

It turns out that the ‚power of plants' in the collection is also appreciated by the interior designer Agnieszka Musiał - Chmielnik, who assesses the phenomenon with these words: “(...) I believe that the collection of printed textiles titled *Nature Without Borders* will be very well suited both for chillout rooms, where people want to calm down and be surrounded by nature at the same time. In this collection, motifs from the Polish Jurassic Highland, especially their details, have elements, with which a man can relax, for example by focusing the attention on the pattern. Proposals to use these textiles in spa interiors and other relaxing places are therefore very justified (...)”.

Magdalena Purgal, an instructor of Hatha Yoga and Nordic Walking, answered some questions about the practice of yoga in the context of colours and motifs of nature

63. Source: <http://portal.uw.edu.pl/web/approval/terapeutyczny>, accessed on 11 October 2021.

of the Polish Jurassic Highland. In her opinion “(...) The collection of printed textiles with the motifs of the Polish Jurassic Highland, especially their colours, creates a unity with its nature. What can be noticed here is the coexistence in the compositions presenting organic motifs of not only colours but also contrasts and interesting forms. Based on the presented collection of accessories for exercising with threads of nature of the Polish Jurassic Highland, I think that it is an interesting material for a person engaged in the practice of yoga. The natural fillings used, i.e. buckwheat or mustard, have a beneficial effect on health. Additionally, the collection is enriched with convex elements which make it possible to massage receptors on the human body by touch. The textiles used have also been appropriately selected, they are delicate, soft and nice to touch. This collection is close to my heart because these textiles associate with a place that is important to me (...)”.

Over the last few years, I have met people who took part in my research and spoke about the experience. I have prepared for this for a long time - mentally, intellectually, but also physically. One could say that I grew up for it, but also various personal events in my life inspired me to go towards nature. Even though I already knew 'something' about it, I was open to suggestions and opinions from other people. The conversations made me realise that we are all connected to Nature and have the opportunity to develop and grow through and with Nature.

Opinion of Agata Nowak, psychologist, art therapist, on the therapeutic character of the doctoral thesis

The feminine form of the Polish name *Jura* (the Jurassic) symbolises the mother's safety and warmth for her child. In the collection of printed textiles, one can perceive a therapeutic pause and immersion in the feminine element full of power and stability. This symbolism is a reference to Jungian theory which says that the female element is like a vase that holds the ideas poured into it. Relaxing among the rocks and stones of the Polish Jurassic Highland, people have an opportunity to stop and look deep inside themselves. There is a chance to find answers to questions from the existential category.

Caves are an extremely important therapeutic aspect of this region of Poland. It is a grounding which is often compared to the stability of a stone. To make people feel this grounding, psychologists often conduct therapy among rocks. Caves are associated with darkness, safety, muffled sounds that a child hears while in the mother's womb. Entering a cave is an entrance to the beginning, which for many people represents a healing, a cure or a way to „break through”. It is also interpreted as an entrance into the womb/resource, a moment for reflection. It is a return to the first postnatal trauma, going through it again. People wish to check how they will feel there, what they

will experience. With the help of nature, the thoroughly intriguing space of the caves, they want to cleanse difficult emotions. It gives the possibility of catharsis, calming down and healing one's psyche. The touch of stones, immersion in the earth - this is contact with the feminine element, through which a person comes closer to his or her potential, which exists but is undiscovered. The mountains are the masculine element and looking into the depths is the feminine element. The man goes forward, develops and implements ideas, and the woman holds these ideas as in a vessel.

The Polish Jurassic Highland holds enchanted in stone the treasures of a by-gone sea - the outliers whose unique whiteness, formed from limestone, evokes purity, innocence and a carefree childhood. The imprints of ammonites created according to the perfect Fibonacci sequence give a human connection with what is primordial and organic. These rocks are a record of the past and a symbol of return. Grey rocks represent neutrality, which is very necessary for people, as it is an expression of balance and tranquillity without manifesting feelings to the outside world. It is the colour of hidden emotions symbolising the desire to rest from all the colourful stimuli encountered on the way. The colour black found in the mysterious interiors of caves, from a psychological point of view - can evoke both fear and curiosity, but also suggests safety, strength and separateness.

Reflecting on the flora of the Polish Jurassic Highland is extremely therapeutic. It can be helpful for neurotic people seeking balance in this turbulent world. The colour green brings a sense of safety, soothes emotions and heart problems. It is associated with life, harmony, nature and being in close contact with it, healing, hope and freedom. Many experiences confirm that people with emotional problems find solace and hope by meditating among nature and greenery.

The Jura area has a large number of springs that have a healing effect - the water has a very powerful effect on health as it is full of raw materials and minerals from soft limestone. It is an extremely energetic medium, transmitting to the body the therapeutic aspects of the place. The motif of flowing water is extremely important for the human psyche. By listening to the sounds of water, a person can purge various emotions and tensions in the body. Water sounds are often used during a massage and this is the so-called filtering of emotions, a process of rebirth. Physiotherapists and therapists who use aspects related to water, e.g. the sound of water, small fountains, pictures with related themes, can help more with emotional renewal. This is even reflected in the physical cleansing. The kidneys and liver, under the influence of these sounds, filter and release the liquids that accumulate in the human body. This water flowing in the Polish Jurassic Highland is like the bodily fluids in the human body.

Acupuncture is comparable to springs because it regulates and directs the flow of energy in the body. Springs symbolise purification, while standing water symbolises

a sense of security, a return to the mother's womb, where a person is in the water and feels perfect there before going to the outside world later. Blue embodies good communication, spirituality, calmness and tranquillity. It is the colour of freshness, purity, creativity and inspiration. This colour of flow is associated with water, while water is associated with purification.

People with great intuition, especially artists, participate in a kind of therapeutic process by staying in the Polish Jurassic Highland. They can draw overwhelming inspiration from it, if they are able to contact in an intuitive way with the rocks and the whole story they contain. Rocks are the most organic chronicle that cannot be falsified, it is an original, organic and therapeutic space. It can be a great inspiration for artists as a kind of purification and release.

The painting technique used in this work is a kind of therapeutic artistic technique. It is also very relaxing. It gives a huge space and acceptance to the final result of creative activities. The paintings are calming, they refer to rocks, flora and springs. The colours are opposing but create harmony. Some have therapeutic aspects related to the heart area, e.g. green is often identified with the treatment of neuroses, emotional problems. The images can also be a perfect complement to the therapy room, and thanks to their combination in different colours - everyone should find something for themselves, depending on what problem they come to the psychotherapist with. Tones of green, blue and grey are complemented or completed with opposite colours. The combination of all these colours introduces an aspect of balance and gives the opportunity to focus on what it needs most. A therapist who can skilfully guide this process and use qualifications in healing through art can draw far-reaching conclusions that can help the patient. Simply talking about colour and the most pleasing and irritating areas in a painting can be highly therapeutic.

As for the structure of the work - feeling with the sense of touch, contact with it grounds a person. This is an important aspect of being able to „come down to earth” and, in turn, by coming down - to be able to remember the basic functions of life and return to the needs of the body. Interacting with a structure, touching it, can lead to thinking about oneself. Perceiving with the senses leads people to ground themselves and find themselves in the physical world. This is extremely important for the health of the body, somatics, which indirectly affects the psyche. The texture of the pieces is marble, because marble is a metamorphic limestone rock that has hardened under the influence of temperature and the ancient past, such as plants and creatures, can be read in it. Jung mentions alchemy at this point, the therapeutic aspect of chaos. These paintings in an art-therapeutic approach are a great tool for such an exploration.

Thanks to the accessories, the sense of hearing, touch and sight is used. The important thing is that we immediately feel the natural filling. These works are very or-

ganic, soft, sometimes transparent, delicate, having precisely this feminine element. This nature is gentle, but it has an effect that allows people to find in themselves a lightness and delicacy, wanting to appreciate it and see it as a great strength. The artists preserve this childlike sensitivity. This therapy is as open as the paintings, which could reflect the whole philosophy of Jung, who says that man is limitless and individual, that nothing can really be planned from the beginning to the end.

For people who work in a corporation, interacting with such paintings - compositions without frames - even for 15 minutes, can be an inspiration for action or a break in the chase. A room with this type of work can protect against fatigue or professional burnout. People who have intuition as their first cognitive function - and such people often work in advertising agencies - can see things like artists, so they will see not only images, but they will be able to connect themselves inspiringly with the world of the depicted images. It is a therapeutic rescue, a therapeutic SOS.

Opinion of Agnieszka Musiał, interior designer, on the significance of Jurassic nature motifs in relaxation spaces

Based on the presented collection of textiles with the nature motifs of the Polish Jurassic Highland, I believe that it is a suitable material for an interior designer, both for an individual client, as well as for small companies or corporations. Nowadays, in an extremely difficult time, when people are closed at home, working in Home Office mode, they need the presence of interiors with elements of nature more than before. After a long day at the computer, contact with plants has a relaxing and even therapeutic effect. Nowadays, more attention is being paid to the need to be present and surrounded by plants inside offices, flats and even on balconies. The home or office should be a place where people can find peace and tranquility. I have been realising projects in my own interior design studio for years all over Poland, fulfilling the dreams of both individual and corporate clients. As a result, I know how important the use of nature motifs in interiors is nowadays in design. During initial discussions with customers - most of them suggest using wallpaper with a nature theme. Nowadays shops have wallpapers with, for example, marbles, which are very fashionable.

As an interior designer with many years of experience, I smuggle elements of earthy colours into my designs every time, because I know that in flats that are located in city centres, people need tranquillity. This also works well in projects for offices individual flats. I always try to offer the client the idea of using accessories connected with natural world in my projects.

I have not yet encountered Jurassic motifs in textiles, although I know that they have so-called power, because I experienced their closeness while living in the Polish Jurassic Highland, in Złoty Potok. Often, after a hard working day, I spent time in the midst of its nature, its karst springs, outliers and lycopods, so characteristic of this region. This had an impact on my quick recovery and acted as a calming and relaxing therapy. These forest baths helped me to return to my daily routine faster. So, on the basis of my own design experience and the *Nature Without Borders* textile collection, I think that using the colours of Jurassic nature motifs in an interior is a perfect solution. The benefits of nature allow its inhabitants to maintain balance and inner harmony.

Colours play a huge role in creating a peaceful atmosphere and the natural colours of the earth also play a part in this. To create a human-friendly atmosphere in this fast-paced life, it is important to adapt the right colour scheme to the particular room. Unusual shades of Jurassic nature, the colours of rocks, springs and ferns bring people closer to it. On this basis, it is possible to create home interior designs in tones associated with the forest, rocks and springs, which emanate calm, warmth and elegance at the same time.

The natural atmosphere can be achieved not only through colours but also through the materials used, i.e. walls of rocks, wood, small waterfalls, moss, springs and textiles dyed with natural dyes. I think that the collection of printed textiles entitled *Nature Without Borders* will suit very well in chillout room interiors, where people want to calm down and be among nature at the same time. In this collection, motifs from the Polish Jurassic Highland, especially their details, have elements, with which a man can relax, for example by focusing the attention on the pattern. Proposals to use these textiles in spa interiors and other relaxing places are therefore very justified.

I think that these designs with motifs of such a beautiful part of Poland as the Polish Jurassic Highland will bring positive energy to the interior of the wellness centre proposed by the author. They will also broaden the range of textiles with nature motifs currently available on the market, giving a wider range of options for interior design.

Opinion of Magdalena Purgal, instructor of Hatha Yoga and Nordic Walking on the practice of yoga in the context of colours and motifs of Jurassic nature

Yoga is a great motivation for people who want to improve their condition through properly systematic body training and spiritual discipline. It is a path leading to healing of both body and mind, especially in this time of pandemics. I know from experience that practising yoga among nature increases the possibility of taking care of one's mental balance. I have been practising it in the Polish Jurassic Highland for years because these

areas are great for this type of activity. These are mainly original in their form limestone rocks, which are also attractive places for climbing. Exercising among the rocks gives a sense of strength, safety, modesty, releases peace and harmony.

A good place for exercise is the surroundings of ferns characteristic for the Polish Jurassic Highland, the so-called lycopods, whose main advantage is that they naturally ionise and purify the air. The Polish Jurassic Highland is characterised by particularly beautiful colours, rich fauna and original xerothermic flora. It is an ideal place for active relaxation, regeneration of the organism through purification and oxygenation. The collection of textiles with printed motifs of the Polish Jurassic Highland, especially their colours, creates unity with its nature. What can be noticed here is the coexistence in the compositions presenting organic motifs of not only colours but also contrasts and interesting forms. Based on the presented collection of accessories for exercises with threads of nature of the Polish Jurassic Highland, I believe that it is an interesting material for a person engaged in the practice of yoga. The natural fillings used, i.e. buckwheat or mustard, have a beneficial effect on health. Additionally, the collection is enriched with convex elements which make it possible to massage receptors on the human body by touch. The textiles used have also been appropriately selected, they are delicate, soft and nice to touch. This collection is close to my heart because these textiles provide an association with a place that is important to me.

Exercising amongst the nature of the Jura always gives fulfilment, tranquility, especially now - at this difficult time. It gives practitioners a real boost of energy and improves natural breathing, while enhancing mental balance.



Summary

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Conclusions

Nature and colour are inseparable elements of art and life. They have also become an object of interest and inspiration in designing prints on textiles. The path of my artistic explorations, although not specified from the beginning, „ran” towards design. The subject of my doctoral thesis merged a field of knowledge which is well known to me, i.e. painting and textile printing, with new, undiscovered areas. The research problem and the therapeutic context posed a personal challenge for me. In addition, they opened up completely new ways of thinking about design and textile printing.

Nature Without Borders refers to the inspiration of Mother Nature, my passion, boundless explorations, several years of experience and the process of creation. The doctoral thesis is an attempt to find an individual design ‚proposition’ that ensures harmony, happiness and inner peace. The interdisciplinary character of the collection is a confirmation of the openness and exploration of many paths in design and art, taking into account long-term trends.

The first chapter of the thesis presents the issue of nature and wildlife, a selection of previous studies concerning nature and human, as well as specific examples of artwork related to natural world and relevant to the topic of this paper and its creative part. The importance of the relationship between human and nature is highlighted, as well as its positive impact on human health. In further part of the chapter, the primary source of the creation of the Polish Jurassic Highland, which became the main inspiration for the thesis, is presented.

The second chapter considers the therapeutic aspect of colours - chromotherapy - and the influence of colours in interiors on the human mind. An analysis of current textile trends has also been carried out, and the importance and role of textiles in interiors has been presented.

The third chapter, in turn, explored the original collection of prints, inspirations, design intent, and the process of creating the artwork. There is also a description of the place for which the collection and a presentation of all the meditation and exercise accessories that have been created is intended. The image session realised in the spa interior was also presented.

The fourth chapter addresses the research methodology and the survey along with its analysis and design. This chapter also provides opinions of experts, i.e. a psychologist, an interior designer and a yoga practitioner, who analyse and recommend the collection from therapeutic perspectives.

The work is concluded with a summary in which I have attempted to analyse the results obtained and the potential of the multifaceted use of print in the creation of this

textile collection. A list of illustrations, bibliography, netography and English version are also included.

Nowadays, modernity creates a lifestyle, and in the multitude of duties and things to do, it happens that people forget about themselves. My idea was to prepare a paper with a strongly developed practical aspect. I hope, therefore, that through this thesis, I will contribute to raising awareness of how to create an environment and interior that allows the body to rest and regenerate.

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