



LAPIN YLIOPISTO  
UNIVERSITY OF LAPLAND

Author

**Amir Abdi**

Title

**Community Art Practices to Elevate Spiritual and Environmental  
Awareness**

Faculty of Art and Design

Arctic Art and Design Master's Thesis

Spring 2023, 70 Pages

# Summary

The purpose of my research study is exploring possibilities of impacting spiritual and environmental awareness of art event participants by engaging them in community art projects. Structured participatory art research was conducted between dozens of participants and resulted in various art events and spiritual exercises, there are two artistic parts contributing to research data collection: the bio-art work made with community together with living fungi and second part is documentary film presenting the art creation process. The documentary "*Community Based Art Project Chatra-BioMandala*" can be watched online at [https://youtu.be/t57iZ3\\_zRdw](https://youtu.be/t57iZ3_zRdw)

My qualitative analysis shows positive interest of participants and people interested in spiritual art topics on one hand and dispirited attitude from policy makers in the media field on the other hand. The main conclusions of my research are that participation in spiritual-environmental art events significantly promotes positive impact on the mental wellbeing of participants who are interested and in need of this type of support while seeming irrelevant to outsiders.

*Keywords:* Art-based action research, Participatory research, Bio-art, Environmental art, Spirituality in art, Art-based research, Contemporary art, Socially engaged art, Nature-inspired art, Ecological consciousness, Creative exploration, Sustainable art, Interdisciplinary art

# Content

<b>Content</b>	<b>2</b>
<b>Introduction</b>	<b>2</b>
Why Chatra bio-mandala is created	2
A journey of becoming an artist	3
Bio-Mandala Journey	7
Research design and methodology goal and approach	8
<b>Literature Review</b>	<b>11</b>
Profound human questions laying out the foundation for art based research	11
Art as a spiritual activity	13
Spiritual aspect in color and form	15
Bio-art	16
Environmental art	20
Philosophical foundation for Chatra Bio Mandala	24
<b>Method</b>	<b>31</b>
Art-based action research	31
Research method	34
Research data	35
<b>Procedure - Experimenting bio-art</b>	<b>37</b>
Motivation drive behind Chatra-bio mandala	37

People involved in creating bio-mandala	38
Organizations involved in creating bio-mandala	41
Project Implementation Process	44
Ethics	50
<b>Presenting research data</b>	<b>50</b>
Preparing the data	51
Documentary related	54
Ceremony related	57
Quick pattern finding in research data	59
Processing the research data	59
Why participants were thankful	59
Sharp division on feedback and it's reasoning	61
<b>Conclusion</b>	<b>62</b>
<b>References</b>	<b>66</b>

# Introduction

## Why Chatra

### bio-mandala is created

This research analyzes my bio art installation called Chatra bio-mandala as an example of artistic participatory collaboration between artists, researchers, community members and mushrooms.

The intention is to explore physical, mental and spiritual aspects of our inner and outer world with the help of creative participation. The topics that I am engaged the most are related to, participatory art, mental, emotional and spiritual wellbeing, environmental art, artistic research and Bio-art.



*Figure 1.* Close-up photo of Chatra bio-mandala. Photo by Amir Abdi, 2021

## A journey of becoming an artist

I started pursuing art studies in 1999 in school of fine arts, Karaj, Iran. Studying since high school years in the art field laid out a profound foundation to learn about anatomical drawings, developing photographs in darkrooms and learning about architecture design and art history around the world at a relatively early age in my life.

At the age of 17 I got accepted to study for an associate degree in computer graphics at University of Anzali, Iran. Anzali felt like a city of poets and traditional art located south of the Caspian sea. The region where Anzali is located has a humid subtropical climate with rich historical sights, many of which are ruins hidden in the lush green forests as seen in figure 2. Often I hiked these natural and cultural sights during two and half years of studying, these picturesque visits gave a unique understanding of our common human roots and art in the passage of time.



*Figure 2.* Roodkhan Castle, is a brick and stone medieval fortress in north Iran photo by Amir Abdi, 2005



In 2008, after entering the job market in the design field for a year I decided to study abroad. A chain of events led me into studying a Bachelor degree in Media studies at university of Tampere, Finland. Moving to Finland opened a doorway of possibilities to learn not only in an academic setting, in which Finland carries a reputation, but also learning about a new way of thinking due to cultural, economical and geographical differences with Iran. I also did exchange studies for the duration of one academic year in the city of Manchester, England. Close collaboration between BBC networks and the University of Salford made me interested to focus my studies in storytelling, film editing and animation.



*Figure 3. Snow sculpting workshop University of Lapland, 2022*

Since 2021 I am studying for Masters, Arctic art and design at the University of Lapland with focus in art based research. Through my master's thesis I am aiming to connect my past experiences studying and working in the art field in order to take advantage of many years of art studying in a single project.

Besides mentioned academic studies I joined multiple art classes in private institutes including sculpting, 3D animation design and drawings. Roughly 20 years of studying and working in visual arts in dozens of countries including Iran, Finland, UK, Malaysia, Hongkong, Czech Republic, Estonia has trained me in many approaches in creating art.



*Figure 4. Studying in TAMK University enabled me to travel and learn in many different parts of the world, Hong kong at night. Photo by Amir Abdi, 2011.*

I could say in some of my job experiences I was carried away by clients' needs for fast and eye-catching designs that suit the market in specific regions and time. I criticize those visual works merely an attempt to fit a working demand with decorative need to match or out compete the client's competitors. I reckon my best artworks diverted from experiencing intense life experiences and using the world of forms and colors to share



that experience visually with others. In the latter case the inner meaning is shaping the outer form.

## Bio-Mandala Journey

The spark of the project appeared once Maria Huhmarniemi shared an invitation to the Turku2029 Urban art contest for artists and made an example of bio-art in a group exhibition “Forest talks to us” in Äkäslompolo curated by Maria. I sent an application through Alkuvoima and my application was funded by the city of Turku.

Project was supported by three stakeholders Turku 2029, Alkuvoima, Kaapa Biotech.



*Figure 5. Chatra bio mandala erected in Alkuvoima, Turku. Photo by Leo Kääriäinen, 2021.*

In my bio installation project Chatra bio-mandala shown in figure 5 the inner inquiry is the main drive for expression. My intention is not producing to exhibit but I am using

artist creativity to learn via experimenting and share this phenomenon with participants. Exhibition of public art is merely a side product of this action oriented exploration. In the process of making the installation I started learning new skills that were previously unfamiliar, such as working in mushroom lab production, metal work skills, sewing fabrics and conducting community events.

The reason that I walked into these previously unknown territories was the result of transforming inner concepts and experiences into the physical 3D world. In accordance with available resources and the conceptual needs of Chatra bio-art these techniques were employed. In this paper I often refer to Chatra artwork and a video documentary that show the artistic creation and philosophical bases behind the artwork, which are used as artistic part of my thesis research.

## Research design and methodology goal and approach

Examining the different artistic practices in communities could lead to improvement of participants' spiritual and mental wellbeing. Reaching this goal requires a dynamic research approach that is strongly grounded in both action based research methodology and artistic methods. This is essential to make sure that the respondents in a study of this abstract and intangible topics their individual views are not blocked. In line with this thinking, this study is based on an art based action research, art based research and community based research approach which is explained briefly in the following sections.

I am going to clarify concepts of research, research design and research methodology in order to bring clarity of their usage in this paper.





*Figure 6. Volunteers preparing for the fire ceremony as part of participatory action based research.*

Research method is the logical process of how research reaches valid and reliable information. This logic process is a strategy used in data collection or evidence for analysis to arrive at new information. While the research method is the tool that we implement, research methodology is the reason why we are using specific tools and how these tools are suitable to arrive at new findings.

Research is defined as “systematic investigation undertaken in order to discover new facts, get additional information” in Oxford Advanced Learners’ Dictionary of Current English. According to the mentioned definition of research, research is a planned activity and activity is focused toward revealing new or more information about a specific topic.

The research process includes pinpointing a particular problem or area of interest and translating that problem into a research problem, collecting data, analyzing the data and reporting the findings of the research (Leavy, 2019).

Participatory Action Research (PAR) is an interesting way to work with communities. In this method researchers take less of a lead in the project and also researchers might work as a catalyst and invite people to come and participate in PAR(Wills, 2020). The main point is that people who are actively participating in the research creation take the lead and active part of collecting data vs. a community being studied (Wills, 2020). PAR requires a cynical process and also a lot of connection building between researcher and community. But it comes with many questions and challenges compared to traditional challenges.

Experiential learning links to the theory of constructive learning. Constructive learning is standing on three key fundamental basis

1. Learning is built as a reaction to each individual's experiences and previous knowledge
2. Learning happens through active exploration
3. Learning takes place within a social context – interaction between learners (Gray & Malins, 2016).

Encouraging participants to engage in active exploration of the research process in relation to artistic practice and context of research (Gray & Malins, 2016).

In the literature review chapter I start by highlighting my main questions followed by explorations into literature on spiritualism in the first two sub-chapters. Afterward, in the bio-art chapter I write about the importance and uses of bio art with reference to bio artists and bio-art projects. I close down the bio-art chapter emphasizing on the benefits of keeping a curious mind. I continue in the next subchapter to draw attention to environmental issues and examine an art exhibition with an environmental theme and finally the last sub-chapter explains about the philosophical foundation that helps to guide Chatra bio mandala creation.

In the method chapter, I talk about action base art research and its application magnifying why it is an appropriate research method for my specific project. Research method depicts primary structures that researchers use to acquire knowledge and also

methods to validate that knowledge. Last subchapter of the method chapter presents a documentation process that helps me remember what has happened during the art project. Procedure - Experimenting bio art chapter talks the nuts and bolts of Chatra bio art creation including motivation, co-creators, supporters, process and ethical principles. Results, analyze data and discuss with literature chapter present data gathered data related to documentary, social media, the ceremony event and discuss them. Last chapter Conclusion - "Thinking" gives my own thoughts on presented action based art research.

# Literature Review

Profound human questions laying out the foundation for art based research

In Community based participatory research (CBPR) and art-based action research (ABAR) a literature review is problem-oriented and interdisciplinary or trans-disciplinary, often bringing on literature review from several disciplines and research traditions in order to depict a holistic review of the up to date research related to the root problem (Leavy, 2017). (CBPR) and (ABAR) will be explained in the art-based action research sub-chapter.

According to the nature of bio-mandala art and research, my literature review is centered around the main topic of this research, human conditioned spiritual and mental suffering and possibility to expand participants' understanding with active participation in artistic creation. The main categories to look at are spirituality and art, bio-art, environmental art, and theoretical grounds for bio-art.

In the following literature chapters I am going to discuss art as a spiritual activity from the point of view of German philosopher Nietzsche who had a profound influence on modern intellectual history and Kandinsky 19th century art theories. The chapter spiritual aspect in color and forms we read Kandinsky attempts to explain the spiritual value of form and color. Next, I discuss a short introduction to bio-art and a few examples of bio-art by artists in the field.

Environmental art chapter highlights Bio-art and environmental art shared foundation and discusses an art exhibition with an environmental theme named "Forest talks to us". In the Philosophical foundation for Chatra bio mandala chapter I discuss the philosophical basis for bio-mandala with references to Carl Gustav Jung swiss



psychiatrist and psychoanalyst, François Matarasso, community artist and author of *A Restless Art* book.

In a nutshell my art project aim is to explore humanity and his most profound questions that have not been answered: “Who am I? What is life? What is death? Why is there suffering?” One way to make us connected with these essential questions is to make art events that connect us back to the source of beauty and infinity in life and experience the same joy and wonder as we experienced as children. These questions can be answered only by individuals. Other people can only offer help or point at the direction where to look, but participants only can arrive at the answer by themselves.

## Art as a spiritual activity

In my research a clear distinction between spirituality and religion is assumed. I am using Nietzsche's conventional philosophical ideas to depict this difference and move from religion to spirituality. Although Nietzsche harshly criticizes religion, he notes that if we leave out religion, people are looking for other higher powers which could be King, Royal family or in today's context government (Ekhtiari, 2021). People start to assume the King as an idol of worship, which will likely cause a deeper crisis. In turn, Nietzsche offers another way of thinking, he suggests leaving out God and christianity and start doing art (Ekhtiari, 2021). Art has the potential to soothe human wild spirit and help humans reach higher states of being.

Nietzsche made a hypothesis that we can assume Jesus was man of God or godly man, but in the same manner William Shakespeare can be considered a godly man (Ekhtiari, 2021). Nietzsche titles Shakespeare the most heart-rending reading, because Shakespeare must have suffered incomparably to have such a need of being a buffoon!” Nietzsche's buffoonery at least according to himself stems from a deep insight

into human suffering, a tragic worldview he believed he shared with the Olympian figures of Shakespeare and Dionysus (Lanham, 2016).

People in power and many religious priests invite ordinary people to live simply similar to Jesus, but Nietzsche argues that this approach can endanger poor's wellbeing and keep them in a vulnerable state and prone to be abused by people in power (Ekhtiari, 2021). It is important to follow material life as well as spiritual pursues (Ekhtiari, 2021).

One of the greatest texts on how art enriches the soul, came in 1910, when legendary Russian painter and art theorist Wassily Kandinsky wrote *Concerning the Spiritual in Art*, an exploration of the most authentic arguments for creating art, how the "internal need" forces artists to create art with spiritual impulse and also audiences to admire art as a spiritual hunger of the soul (Popova, 2014).

Robert Schumann said "To send light into the darkness of men's hearts – such is the duty of the artist." and the artistic form to express that light into the darkness is only a tool (Kandinsky, 1972). "Being an artist is dragging your innermost feelings out, giving a piece of yourself, no matter in which art form, in which medium." said Henry Rollins (Kandinsky, 1972).

If art is deprived of spiritual aspects, the artist seeks only for material return for his skill in performing tasks, his capability of vision and experience. His goal becomes the satisfaction of self-love, proudness and greed (Kandinsky, 1972). Excessive competition, conflict, overproduction, hatred, injustice, circle within circles, jealousy and other negative emotions are the natural consequences of this aimless, materialist art (Kandinsky, 1972).

# Spiritual aspect in color and form

Kandinsky is a Russian painter and art theorist, who is generally credited as one of the pioneers of abstraction in western art. According to his book *Concerning the spiritual in art*, the essential connection between color and form creates the capacity to have an effect of form on color. Form itself, even if it could be totally abstract and geometrical, carries a power of inner meaning (Kandinsky, 1972). A triangle, without the add-on consideration of its side and angles (acute or obtuse or equilateral) has a spiritual value of its own. The angle at which the triangle maintains an upright position, and whether it is motionless or moving, are of importance to its spiritual value (Kandinsky, 1972). This information is especially important for visual artists in order to communicate aligned messages (Kandinsky, 1972). When this triangle form is placed next to other forms, its value could be changed, but it remains in quality the same and so the same principle is true for a circle, a square, or any imaginable geometrical shape (Kandinsky, 1972).

An orange triangle, a green circle, a blue square, or a red triangle, a yellow circle, a purple square, all these hold different meanings and have different spiritual values. Also It is clearly understood that many colors are hindered and even nullified in effect by many forms (Kandinsky, 1972). Generally speaking, sharp colors are well matched by sharp forms, for example an orange triangle, and soft, deep colors by round forms, for example a blue circle. But it should be noted that a mismatched combination of form and color is not necessarily incompatible, but may, with use of awareness and consideration, depict the way to new possibilities of harmony (Kandinsky, 1972). Since colors and forms are pretty much innumerable, their combination and their influences are likewise infinite, the material is limitless and form, in the limited perception, is only a separating line between surfaces of color (Kandinsky, 1972). But beside this outer meaning, there is also an inner meaning. Every form has something to say to the world. "Form is the outward expression of this inner meaning (Kandinsky, 1972).

# Bio-art

“The living is.

The living communicates.” (Kac, 2015).

In the introduction chapter from *The Plant Contract : Art's Return to Vegetal Life* book, Prudence Gibson describes how contemporary art and culture can help each other. Art can point out and introduce again forgotten nature and the way we have forgotten nature can be addressed by art, not only as a call to return to nature, but also address globalized issues of climate change in a small and localized way (Gibson, 2018).

Humans always tend to see the tiger, not the jungle, see the lion, not the field, the camel and not the desert. We have learned to see animals, not to see ourselves (Gibson, 2018). Bio-art can train our eyes and mind back to the whole picture and spectrum of life. “If we can ‘see’ the vegetal world once more, we might remember what we are (Gibson, 2018). “Plants are the key to curing vegetal blindness.” If we don’t see vegetal, we lose our respect for it and therefore lose respect for ourselves (Gibson, 2018).

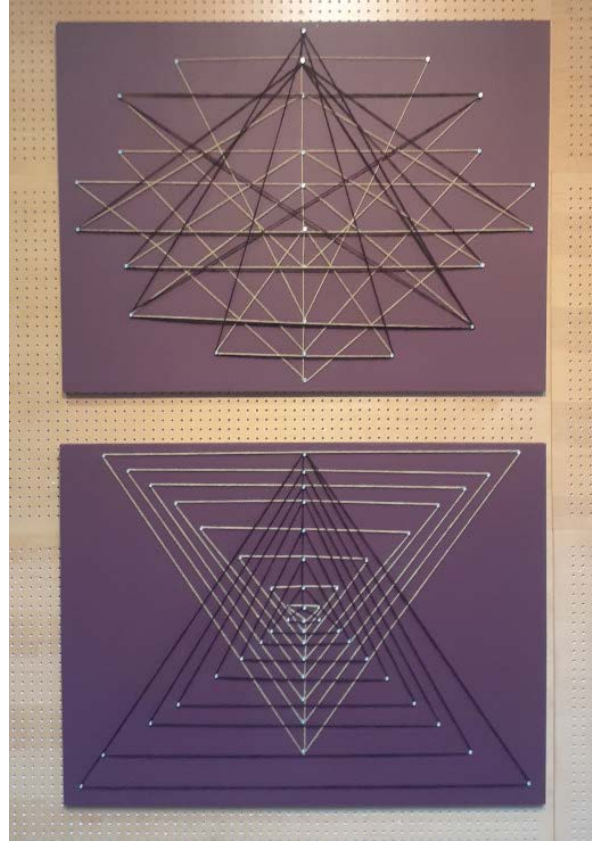
In the article *“Public Opinion And Contemporary Art As Intervention In Nature Conservation”* there is relevant example of interaction between art and science. Author and artist Huhmariniemi (2013) links rare *Capricornia boisduvaliana* butterfly and the construction of a hydroelectric power plant development, which endangers *Capricornia boisduvaliana* in Sierilä, the village of Oikarainen, in Rovaniemi. While carrying environmental art projects Huhmarniemi (2013) draws attention to the development, economic gains of the new hydroelectric power plant, as well as to the whole landscape and examines its effects by referencing independent experts in the field. Endangering biodiversity and habitat of *Capricornia Boisduvaliana* butterfly which are red clover meadows (Huhmarniemi, 2013).

A plain looking butterfly becomes a symbol of environmental concerns related to industrial development in the Sierllä area(Huhmarniemi, 2013). The principle of

opposing species repression confirms the importance of a small plain looking butterfly just as impressive looking, colorful butterfly (Huhmarniemi, 2013). Biodiversity is a harmonic view of all species and environment, *Capricornia boisduvaliana* is symbolic choice to indicate seeing a larger landscape after power planer development is finished and honor a holistic view.

In *“Bio Art – Altered Realities”*, the author draws a line between bio-design and bio-art (Lin, 2017). Creative achievements that are the result of biology and sciences related to living organisms can be regarded as artistic. According to Myers (Lin, 2017), biological processes and living materials integration with graphic and product design or architecture is called bio design, but bio-art uses biology as an art medium or attempts to change the meaning of biology in its outcome (Lin, 2017).

Living transforms and reinvents itself in, and through, its own language (Kac, 2015). The genetic code becomes flesh. An object that has been made by a person represents the living let its presence— that is made with great demands on one's skill, attention, or other resources — take over. This change to the course of action makes the living to be formed of entirely expressive matter. It finds itself liberated from excessive limitation and restriction imposed by abstract physics and chemistry logic, style of representation, substitution, and a slow and heavy metaphysical heritage. A “bio-logic” then becomes possible. The composition of this bio-logic does not consist only of scientific knowledge or of biological or genetic research, concepts, measures, methods, and models. This bio-logic is formed because the living impulses that deals with itself, which surpass current artistic and scientific categories (Kac, 2015). Therefore, all research interprets itself as expression, and all expression interprets itself as research by means of heterogeneous methods and hybrid achievements (Kac, 2015).



*Figure 7. “New Image of String Art” bio art by Maria Huhmarniemi and Elina Härkönen. Photo by Maria Huhmarniemi, 2022.*

Maria Huhmarniemi and Elina Härkönen collaborated in making an exhibition, *New Image of String Art* in the year 2021 and they changed the traditional images into new shapes and images, as influenced by world cultures.

Huhmarniemi in her forthcoming article called, *“Blend and twist: Expressing transcultural value through art”* explains how she is influenced by aesthetics of Sri Yantra and combines it with dyed wool using a traditional Finnish herbal and fungi-based method, in order to give a new color to existing concept and express transculturalism as a value. Celebrating the blends of cultures while also revitalizing traditional string-art (figure 15).

Curiosity is a common element in science-based and art based activities. Curiosity makes us imagine different future scenarios. On the other hand, curiosity can be



suppressed by fear of the future which is caused by the feeling of losing control over one's life. Oddly growing amount of knowledge and data produced by sciences is increasing uncertainty that describes the quality of our current world.

The uncertainty or doubt is meant to aim to become permanent trust by more scientific research to reach more accurate data. In comparison with art based research that usually is pointing towards our future and sometimes proposing new possibilities. These art works are happening parallel to developments in the sciences and one of their goals is to highlight creation of experiences in preference to proposing definite truths based on scientific data (Beloff, 2013).

Pema Chödrön, a Buddhist teacher, points out that she encourages the audience to keep an open mind during her lectures. It is similar to the wonder of a baby seeing the world without conceptions. As a zen master once said that in the beginner's mind there are many possibilities, but in the expert's there are few (Chödrön, 2001).

## Environmental art

The book *Encountering nature toward an environmental culture* argues that paying close attention to nature is essential for the development of an environmentally friendly culture. The author discusses environmental degradation that we are increasingly facing, and is best understood as the result of a cultural mismatch: our popular cultures seem not to be suitable to the natural environment on which we depend in every way (Heyd, 2016). Considering this problem, the aim of environmental art work is to make benefits to the enhancement of our culture in a way that is fit to the natural environment and processes in which we may flourish, and on which we all depend (Heyd, 2016).

The origins of environmental art and bio art lie in biology, nature and organic matter. It means similar to living organisms, they are constantly changing. This quality also affects the audience's response towards the art work. Organic nature of the work with living beings creates constant change and produces a noticeable experience for the audience (Kac, 2015). Whether that experience is getting involved in an urban gardening project, a short journey or trip to a landscape or observing organisms by a microscope or living matter in a bio sculpture (Kac, 2015).

The concept of Chatra bio-mandala was born after exploring art production with environmental related discussions for several years, although the first version of my bio-art was named "On the ropes?" ,which was created for the art exhibition "Forest talks to us" . For the reason that the aesthetic and environmental history of Chatra bio mandala goes back to "On the ropes?" bio-art and relates to environmental discussions with other artists, in the following paragraphs I dive deeper into the "Forest talks to us" exhibition curated by Maria Huhmarniemi.

Huhmarniemi is a contemporary artist and a lecturer in the University of Lapland, Faculty of Art and Design. Huhmarniemi engages with topics related to the North and environmental issues such as people and nature relationship and environmental responsibility. Huhmarniemi's support during the "Forest talks to us" exhibition and encouraging me to pursue my artistic dreams despite unfavorable circumstances has had an enormous impact on actualizing Chatra bio-art and learning ways of unbiased approach in art-based research.

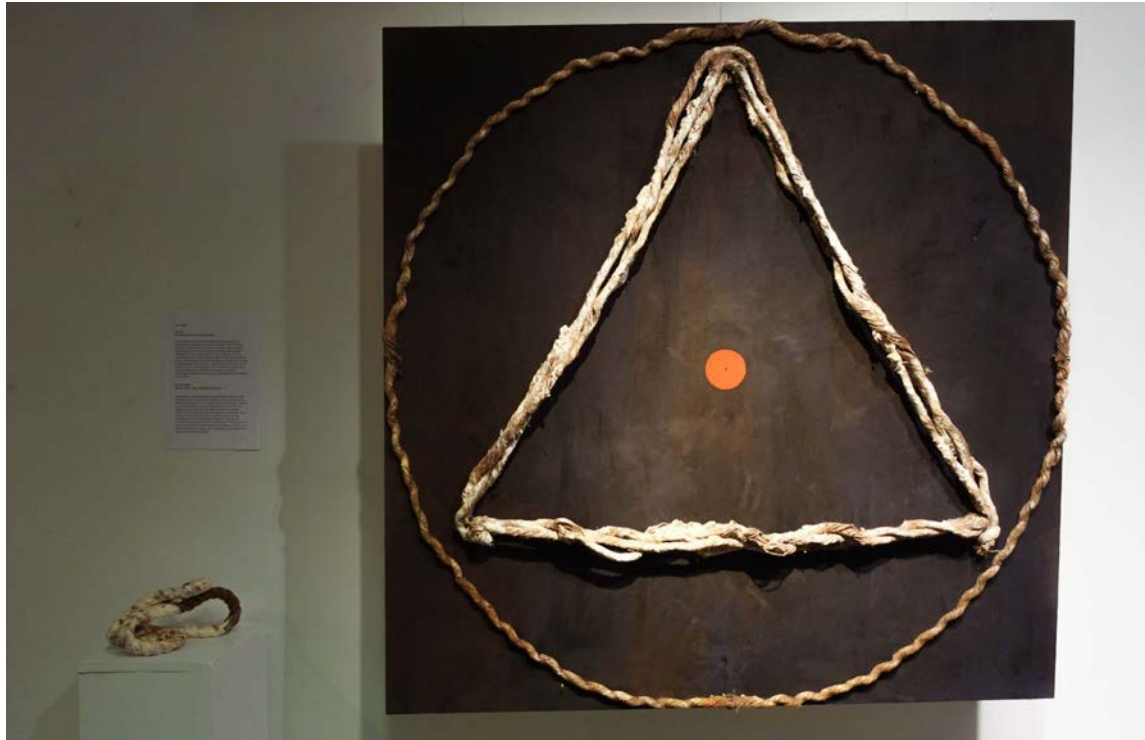


*Figure 8.* Leaflet announcement for Forest talks to us exhibition. Photo by Amir Abdi, 2021.

The exhibition “Forest talks to us” was centered around a growing genre of art targeting sustainability and sustainable development. Also the exhibition theme addresses political contemporary art exploring relation of living organisms to one another and to their physical surroundings as well as the natural world and the impact of human activity on its condition (Huhmarniemi, 2021).

Biodiversity in Finnish forests has decreased due to unsustainable timber industry activities and clear cut forest practices for commercial use (Huhmarniemi, 2021). The exhibition Forest Talks is emphasizing the necessity for conversation and working together. Artist’s efforts in explaining the dispute over Finnish forest by co-creating with nature shows up post-humanistic theories that give support for non-human aspects of nature and its acknowledgment. This collaboration between human and non-human enhances the audience's relation with the topic and art work (Huhmarniemi, 2021).

Engaging in lengthy discussions in art and environment topics with the rest of the artists in the exhibition helped me create two art works for “Forest talks to us” exhibition. One of them is named “on the ropes?”.



Figure

9. Bio art work “*On the ropes?*” exhibited in Forest talks to us exhibition at Gallery Kellokas. Photo by Amir Abdi, 2021.

I would like to note “On the ropes?” philosophical background and how it links to environment and biology. There are conditioned symbols, which are associated with our day to day social, cultural, religious and moral experiences. These would vary for persons of different localities, countries and races. I choose to have in my artwork symbols such mandalas (flower of life), that form part of the consciousness of every man, woman and child, irrespective of social, religious and cultural traditions. These symbols form the collective unconscious mind of mankind, and symbols used in this area invoke very deep responses.

I let the geometrical arrangements of the mandala be formed by mushrooms. I have chosen mushrooms because they are one of the most important decomposers at the



end of the food chain, and they recycle nutrients back into ecosystems. If nutrients were not recycled, our habitat would become infertile and struggle to support life. On the flip side, all around the world fungi can be problematic for farmers because they can infect and decompose crops. For me, this togetherness of the form of Mandala made by mushrooms symbolizes the invisible web of life creating life as we experience.

*Figure 10. Close up photo of gray oyster mushroom spreading mycelium on the ropes. Photo by Amir Abdi, 2021.*

A yantra is a geometrical diagram used as a meditation aid in various schools of Yoga. This yantra was co-created by an oyster fungus and artist Amir Abdi with the help of

mycologist Katarina Česnik who enucleated organic ropes with Pink oyster mycelium for the Forest talks to us exhibition. The title *On the ropes?* refers to a fighter in a conflict. It is a vulnerable position for a boxer to be pinned against the ropes that enclose the boxing ring. “The artwork can be interpreted as a proposal to focus on mental capacities to cope with wicked problems such as forest maintenance and eco-anxiety.” (Huhmarniemi, 2021).





*Figure 11.* Video art screenshot left, Left down “*On the ropes?*” Bio Yantra, top right Oyster mushroom inoculated rope. Photo by Maria Huhmarniemi , 2021.

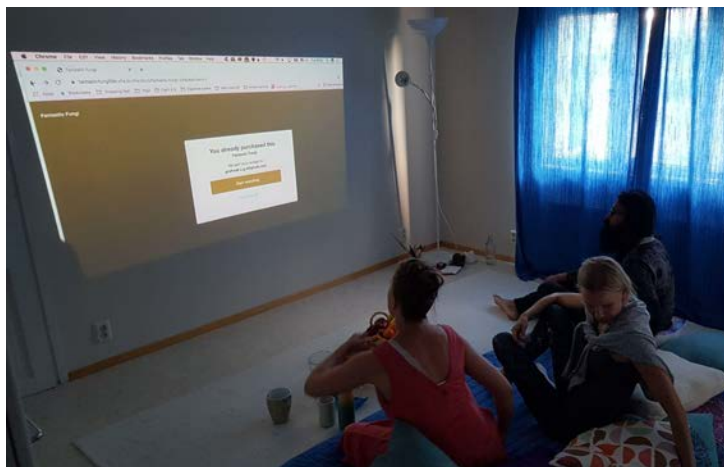
In Finland, forest maintenance opinions are divided into two sharply contrasting views by traditional and social media. There are conflicting needs of one side necessity of the rapid tree growth and the other side protecting forest biodiversity. Art works presented in “*Forest talks to us*” seek to make sense of this polarization by interpreting and representing some aspects of this dispute. For example by collaboration with non-human nature in “*On the ropes?*” artworks. Ways to release stress in forest and cope with environmental awareness and eco-anxiety were the main conclusions of the presented exhibition *Forest talks to us* (Huhmarniemi, 2021).

## Philosophical foundation for Chatra Bio Mandala



“Anthropologists have often described what happens to a primitive society when its spiritual values are exposed to the impact of modern civilization. Its people lose the meaning of their lives, their social organization disintegrates, and they themselves morally decay.” (Jung, 1964). We are also in the same situation as modern man, although we have a strong ethical and moral foundation which has enabled us to function and play our role in today’s society. But in contrast to primitive society we are not aware of spiritual values that we have forgotten (Jung, 1964).

Participatory art challenges our assumptions about what art is, why we make it, how it affects us and other critical ideas we take for granted. Participatory art crosses borders that have been well guarded for a very long time (Matarasso, 2019). In this project I was introducing the idea of the Mandala project to people who were crossing my life’s path from any walk of life. I invited the people who were interested in doing spiritual art work at Alkuvoima and the amount of participation and enthusiasm was fabulous. Among these encounters the project found many helpers who arrived and felt being part of something important and deep.



*Figure 12. Screening “Fantastic fungi” documentary in Alkuvoima for participants followed, Photo by Amir Abdi, 2021.*

Some of the working titles that were created as the result of these encounters, were metal work artist, chef for community gatherings, handicraft artists helping with sewing the fabric, musician and singers, moderator and researcher for Q&A fungi world session for participants, helpers making the fire pit and cleaning tasks.

In the book man and his symbols in Jung refers to some of common elements of the ritual: “The narration or ritual repetition of sacred texts and ceremonies, and the worship

of such a figure with dances, music, hymns, prayers, and sacrifices, grip the audience with numinous emotions (as if with magic spells) and exalt the individual to an identification with the hero.” (Jung, 1964, p.110). Although participants in mandala fire ritual were coming from different countries, backgrounds and beliefs we had dance, music, hymns, prayers and sacrifices with main focus of the ceremony on individual’s personal journey in life and directing attention to universal emotions, such as support of the group to step out of the unwanted fears and importance of love and compassion. During ceremony hours I saw many laughs, cries, silent moments and moments of ecstasy, which surprised me.

“The Persian god Mithras sacrificing the bull. The sacrifice (also part of Dionysiac rites) can be seen as a symbol of the victory of man’s spiritual nature over his animality of which the bull is a common symbol.” (Jung, 1964, p.216). The object of the sacrifice is symbolic and it should be seen from the context that brings meaning to the individual or group of people. In our ceremony we offered flowers, mushrooms, pine cones, fruits, nuts, seeds and herbs to the fire in the central part of our gathering. Some of the objects of the sacrifices were brought by participants and that was increasing the feeling of belonging and personification of the ceremony to them.



*Figure 13. Inside view of Michael’s church located in Turku, Photo by Amir Abdi, 2022*

During a trip with Marja Huhmarniemi to Turku in Winter 2020 we visited a well known religious site called Michael's Church built in 1905. It is designed by a young architecture student Lars Sonck with neo-gothic architecture elements as shown in figure 12. On the outside walls of the church were forest mushrooms namely (*amanita muscaria*) (figure 13) and pine cones carved in stone. Later my colleague in Charta-project, Amari Kaura visited the church to collect more information and found a book from the church's library that describes "The reason behind choosing mushrooms and pine cones is that the designer have realize their local fruits from Finland are not less holy than grapes and fruits used in roman design and bible stories".



*Figure 14. Decorative mushroom pattern motifs on Michael's church , Photo by Amir Abdi, 2022*

It's worth noting mushrooms have a long history in northern shamanism and have been used by shamans to connect to the spirit world. Also pine cones are drawn in esoteric illustrations from some traditions depicting the activated energetic center on the forehead and between the eyebrows, which is the center for intuition and insights. There is a long and culturally diverse history regarding the pineal gland, most of which have been highly mystical. Famously, Descartes (1594–1650) regarded the pineal gland



as the point of contact between the soul, body, and the place where our thoughts are formed. French philosopher René Descartes published in 1637 showing pineal gland and linking it to the nervous system. He studies pineal gland connection to visual sense. (Shoja, M. M, 2015).

Also, a pine cone looked from a certain angle represents Sahasra and represents cosmic order in creation according to eastern traditions. And the similar recurring patterns with sacred geometry can also be seen in the center of a sunflower figure 14, Sheikh Lotfollah Mosque in Iran, a painting called *Net of Being* from mystic painter Alex Grey and many other natural and spiritual artworks from different corners of the world. Taking into account the usage of mushroom and pine cones in northern shamanism, using the same specific fruits in Mikael's church design demonstrates to be a strong choice of local fruits that stands the passage of time and represents holiness in forms. Both mushroom and pine cone fruits represent Sahasra due to their dome-like shape and form.



*Figure 15.* Recurring patterns with sacred geometry in the center of a sunflower , Photo by Amir Abdi, 2022.

Anthropologists have often described what happens to a primitive society when its spiritual values are exposed to the impact of modern civilization(Jung, 1964). Its people lose the meaning of their lives, their social organization disintegrates, and they themselves morally decay. We are now in the same condition (Jung, 1964).



*Figure 16. Sand mandala constructed by Tibetan Buddhist practitioners in Nepal . Photo by Amir Abdi, 2022.*

Another key concept during development of Chatra project was Impermanence of life. While writing this article I was visiting Nepal and a Tibetan monastery in Pokhara, where 135 monks were studying and living Buddhist teachings combined with modern education. My visit coincided with the annual nine days event called “Vajrakilaya Puja” consisting of daily prayers, meditation, dance, art and sand mandala painting. Tibetan





monks created a sand mandala with so much precision and hard work. On the last day of Vajrakilaya Puja monks dismantle the sand mandala and distribute blessings and food to participants. During those nine days, prayers and chants are performed throughout the whole day, and the act is done to bless the mandala and charge it.

*Figure 17. Mosks dismantling the sand mandala in ceremonial fashion and gifting participants. Photo by Amir Abdi, 2022.*

In the book. *Everything arises, everything falls away: Teachings on impermanence and the end of suffering.* Chad refers to Buddha's teaching: "in the present and see the **impermanence** of body and mind, of all phenomena as they appear and cease, without grasping at any of it. If



we can do this, we will experience peace. This peace comes because of letting go” (Chad 2005).

Similar to Sand painting design in Tibet, Chatra focuses on Impermanence of life, but this time we use mushroom life cycle over the course of a few years in order to be part of the art work. Slowly emerging through the artwork consuming and composting the donated fabrics. Almost like memories and thoughts of previous owners attached to warps and woofs recycled by current of time. The use of mushrooms in this bio art adds the element of time, and the duration of the art work is decided by the lifespan of mushrooms and the length that they want to express their natural display and shapes, color and textures to audiences.

# Method

## Art-based action research

Since the 1940s, participatory action research (PAR) has been a popular method of investigation (Macbeth, n.d.). In order to comprehend an issue and bring about improvement, researchers and participants must cooperate and work together. The method has several definitions, but they all have some things in common which focus on social transformation that combats inequality and advances democracy (Macbeth, n.d.). This recurrent cycle of study alternates between action and contemplation and is context-related, frequently geared toward the requirements of a certain group (Macbeth, n.d.). The majority of the time, this strategy aims to empower individuals to become more conscious of their circumstances so they may take action (Macbeth, n.d.). Several techniques, both qualitative and quantitative, are used by PAR.

Social action research is forming research collaboration with non-academic stakeholders regarding an identified community issue (Leavy, 2017). Community based participatory action research CBPAR favors collaboration, power sharing and values various knowledge sources such as scientific knowledge, expert or lay knowledge and experiential knowledge (Leavy, 2017).

CBPAR develops projects fundamentally with participants who are involved in the community in an effort to manifest change and deeper understanding (Leavy, 2017). Traditionally, Participatory Research is used when the aim is to promote community change or action, although in this project is used to create a deeper understanding of deeper need for spiritual discourse with creative artistic and scientific participation (Leavy, 2017). We used exploring, describing, evaluating, evoking and to build this knowledge within the community and share it with documentation to a wider audience

Note that in most research methods literature CBPAR is explained as part of qualitative

chapters, but many experts in research design perspective note that there are specific goals and issues within CBPAR that go beyond the qualitative research (Leavy, 2017). Many researchers are having a frame of mind not to include quantitative methods in CBPAR, however it is possible to use quantitative, qualitative, mixed methods and arts-based practices in CBPAR projects according to individual project's needs (Leavy, 2017). Specific research topic or problem in progress, community and resources can lead the researcher to decide which methods are justified to be most useful. Action research normally is guided by responsive designs that methodology is revised during the research process based on new learnings and the changing needs of stakeholders (Leavy, 2017).

From the roots of participatory action research (PAR) branches out another methodology named art-based action research (ABAR) as result of collaborations between art educators and researchers at the University of Lapland. ABAR is a research strategy that directs the progress of research in the continuous cycles of action research and utilizing art as a tool for developmental work (Jokela & Huhmarniemi, 2018).

Most examples of art-based action research are mostly related to art education, visual arts and contemporary art. It is primarily developed to support artist researchers with skills and professional methods to search solutions in order to recognize problems and develop future actions and decision making in North and the Arctic (Jokela & Huhmarniemi 2018). Artistic part serves several purposes in the process of research. Art may be used for problem solving or getting new knowledge and better understanding (Jokela & Huhmarniemi 2018). Art can also be the subject of development and/or the tool for the research's data collection and analysis. Art-based refers to the use of art in research in such a way that stakeholders and or community can be included as active participants (Jokela & Huhmarniemi 2018). In the research process, non-spoken knowledge and experiences can be obtained from community and stakeholders, which are not accessed through traditional qualitative research methods based on verbal and written communication.

## Research method

There are five primary structures that researchers work with, namely: quantitative, qualitative, mixed methods, arts-based, and community-based participatory research (Leavy, 2019). Since there are innumerable ways to design the research within these five categories, in the process of creating a methodology for this research (Leavy, 2019), I am considering the aim of this research and methodology of achieving this goal. Let's consider two important questions which can help us to build an appropriate systematic research study. What do I want to achieve with this research and how do I execute this goal?

My research approach consists of both art based research and community based action research. The topic of spiritual deals with intangibles and data that are difficult to know and measure. First let's look at three main ways that we know things. During my research I found that there are many ways to know things and I found similar information about ways of gaining knowledge written in Patricia Leavy on a research design book and ancient yogic text written 400 BC by Patanjali (World Yoga Institute, 2020). In Patanjali's yoga sutras about witnessing the five types of thoughts patterns. Two of which are named correct knowing or truth and false knowing. Correct knowing can be perceived in three mutually dependent ways.

1. Direct way of knowing develops through senses. Most common sensory experiences are hearing, touching, tasting, seeing, smelling.
2. The information also can come through an authority such as parents, teachers, gurus, government, healthcare experts etc.
3. Cultural beliefs or Testimony, verbal communication from others who have knowledge are a common source for gaining knowledge and often are taken as granted (Leavy, 2019). Patanjali yoga sutras describe in order to attain true knowledge all three ways of knowledge must be validated (World Yoga Institute, 2020).

In my art based research process I am trying to avoid false knowledge, still false knowledge reappears in time as by overgeneralizing, making incorrect observations,

finding things selectively, and closing off seeking as soon as they have developed an idea (Leavy, 2016). In some cases, authorities, cultural beliefs, and personal experiences can confirm each other in ways that are deceptive, causing misinformation and bias to spread (Leavy, 2016). It can be understood that true knowledge is a dynamic phenomenon which is unfolding gradually and can not be formed into a concept for an extended period of time and the process of research is helping to stay in tune with the process of information flow of knowledge (Leavy, 2016).

Exploratory research helps to fill a gap in my knowledge about a new or under researched topic, exploratory method looks at the topic from various angles to generate brand new insights (Leavy, 2017).

## Research data

As an art student, one comes to the study of design elements in art to uncover the secrets of your creative vision. By studying the elements of visual language line, shape , form, color, value, texture, and space (Crystal Productions 1996), one can gain a better understanding of how contemporary and historical art movements have used these elements to create a harmonious design, through this exploration you can unlock the mysteries of your own artwork and gain insight into how to craft a unique and powerful piece of art (Hieb, 2015).

On the other hand by participation in art events we don't necessarily need to have artistic talent, but you come to study design elements in order to uncover secrets embedded in what you have already created. Navigating through this non-verbal language in order to gain wisdom of the inner realm (Hieb, 2015).

My research data is aimed to study difficult to access inner realm and in this regard my My art based research data comes from various sources. A few days after the ceremony art event was finished I asked participants to deliver a written feedback on the ceremony and I received a good amount of research data via emails or private messages. Similar feedback is given about documentary channels via different platforms such as Youtube comment section, private messaging, oral communication

and email. Collecting digital notes on google drive helps me to remember what happened in different stages of the project. Another means of collecting feedback from participants was verbal feedback while holding a sharing circle at the end of the fire/cacao ceremony. Participants wanted to voluntarily comment on their feelings and mental process. The video documentary has been a great asset to collect data from participants and documentary viewers. Also a convenient method for reaching out to more people across the globe by just sharing the online link.

During the making of the documentary I have collected hours of interviews from experts in relevant fields that act as recorded raw video files to be revisited and be studied. Video documentary has several purposes and is providing multiple layered of valuable research data for this research. The Instagram page for bio-mandala was meant to inform the public about the progress of Chatra art project yet is providing valuable research data about engagement of participants or audiences and also as a platform for communication.



# Procedure - Experimenting bio-art

## Motivation drive behind Chatra-bio mandala

Chatra bio-mandala is an artistic participatory collaboration between artists, researchers, community members and mushrooms. The intention is to explore physical, mental and spiritual aspects of our inner and outer world with the help of creative participation. The tangible outcome of this collaboration is a bio-mandala sculpture exhibited in Alkuvoima garden. The immaterial manifestation is the process of community-based creative activities, rituals, offerings, and the mental and spiritual exploration of the individual consciousness.

It has been only a very short period of time that humanity as a whole has been interconnected in this way, through modern technological advancements and a global trade market. We are faced with the first pandemic in December 2019 that we are able to discuss and assess together as a united species. There is an unprecedented need for a spiritual discourse and alignment that focuses on this new global situation with its exact challenges and opportunities.

This contemporary installation combines ethical principles that can be found in ancient nature-oriented traditions, with those governing logical theories that can be observed at the core of any human-created ideology. Bio-mandala was made possible with the support of the city of Turku and in their artist grant call by seeking to increase the beauty of the city with focus on community and wellbeing of citizens, which was aligned with my public art installation concept. Translating these visual concepts into grant application writings was a real challenge and time consuming, but it was a necessary step to convince sponsors to provide funding, the knowledge and help of the co-producer was essential for application grant.



*Figure 18. Close up photo of fabrics stuffed with inoculated sawdust . Photo by Amir Abdi, 2022.*

Working in an organic mushroom farm in southern Finland for the duration of three months and personal interest in biology made me decide to collaborate with mushrooms as symbolic representatives of the natural world and cycle of life on planet earth . My inspiration does not come from other artists working with mushrooms, but with close conversation and discussion with researchers in the field.

## People involved in creating bio-mandala

My work as the main artist in the Chatra project, making the concept and design were the initial steps. I have several years of studies in visual art education which helped me to visualize the ideas and share the concept with the rest of the work members. To me, there were more familiar tasks such as artist, filming, concept design, project management, photographing and even a few newly learned skills such as mushroom inoculation assistant, sewing fabrics and being a coordinator of the production.

Co-project manager in Chatra project was Amari Kaura, her background in studying theology was a perfect match with the spiritual theme of the Chatra art work. But she was also working as art-coordinator at Alkuvoima. She facilitates artists to come and exhibit their work in Alkuvoima. Amari Kaura helped to run the project by helping in writing the application in Finnish and English. She was also Inviting participants to the various events, helping in organizing events, co-conducting ceremonial offering and celebration and project managing.



*Figure 19. Kasimir and Amir search the recycling center to find suitable metal pieces. Photo by Anu Abdi, 2022.*

Metal work for the skeleton of the mandala was welded by Kasimir Nuutinen. The Author used 3D program Maya to create a digital draft of the sculpture picture: It was surprisingly difficult to explain to the working group how the Mandela structure looks with drawings and words. The materials for metal structure were found and collected from a metal recycling center in Turku.

Welding equipment was rented and we provided a supporting working environment for Kasimir as well as we could.

*Figure 20. Anu Abdi and Amir Abdi cutting fabrics for bio art usage. Photo by Kasimir, 2022.*



Anu Jalonen had the project manager position that initially started as an unofficial position and slowly established a vital key member in the Mandala building. She helped in organizing visits to different shops, recycling centers, sights and arranging sewing support, taking photos for social media and completing many tasks that required Finnish language. She also provided much help during the ceremony and conducted meditation and yoga sessions for participants. Poster design was done by Arad Mousavi from Iran, Arad was inspired by designers in the 60s American movement based on certain keywords which were describing mood and feel of the project to the designer.



Figure 21. Poster design for Chatra bio mandala, designed by Arad Mousavi 2022.



*Figure 22. Reishi mushroom fruiting signals the appropriate time for transferring bags into the mandala. Photo by Anu Abdi, 2021.*

Joette Crosier, an American biologist working as lab manager in Kääpä biotech, Finland carried out technical, scientific and biologic tasks related to growing mushrooms in the art piece. I was helping as a lab assistant during this process.

## Organizations involved in creating bio-mandala



*Figure 23. Logo of sponsor that provided artist's grant*

Turku city was providing artist grant with selection criteria promoting well-being through art and culture in city of Turku which includes activities that enliven different residential areas. Community spirit was specifically mentioned as a merit and cooperation between different actors in order to build a path towards 2029 reaching different target and age groups compliance with safe distances.

Grant application was asking for a proposal to produce a work, event or process to be carried out in Turku, for example an environmental art, sculpture or an activity that generates community and joy in residential areas and Chatra bio-mandala was one of the chosen projects.

Alkuvoima is both stakeholder and the location where Chatra is taking place.

Alkuvoima is a new and a starting creative art and well-being community.

The activities of the Alkuvoima are built around the overall well-being of the person, and offer a wide range of services such as Art exhibition venue, sound workshops, treatments such as acupuncture and reiki, yoga classes and so on. The work of art is also intended to bring people together into the core of a diverse service center.

The Alkuvoima garden with useful plants will be planted for the first time summer 2021, and Charta art-work serves as inspiration and support for community gardening activities, too.

Tangible project benefits towards Alkuvoima:

- Visibility, Visitors
- Documentary film
- Garden Cacao Ceremony
- Garden beautification
- Fire place





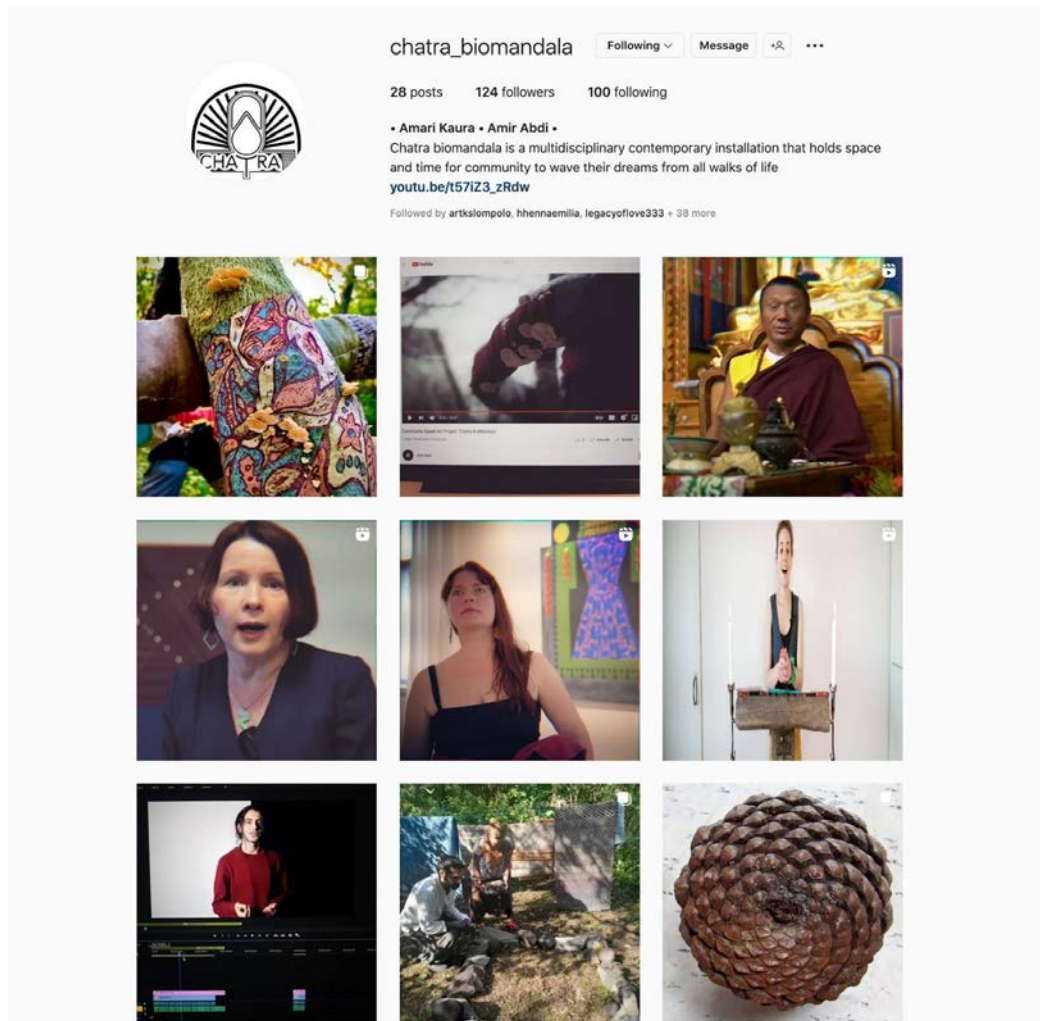
*Figure 24. Mushroom growth process in laboratory. Photo by Amir Abdi, 2021.*

KÄÄPÄ Biotech is a biotechnology company committed to healthier humans and ecosystems. The company researches, innovates and develops novel industry solutions with fungi. KÄÄPÄ Biotech Provided all the mushroom strains, laboratory work and expertise and the costs for production of mushroom substrate. The benefits going toward the company was publicity.

## Project Implementation Process

Instagram channel @chatra\_biomandala was launched early after funding was confirmed the aim was to communicate the project developments to the audience and post informative posts and stories about Chatra. The project milestones and processes

are shared in this channel.



*Figure 25. Screenshot of Chatra bio mandala Instagram channel.*

At times the project felt too big for me and I had to take a step back, take a deep inhale and remember the fun and play in all of it. Organizing, scheduling dates and events between different sectors such as science lab, venue, volunteers, kitchen team, metal work, sewing helpers, guest lecturer, interview days, community, team members, music band and stakeholder felt overwhelming and too much work, but in the same time rewarding to see people were interested to participate and engage in community based art.

The Implementation of the project can be broken down into a few main sections. There were certain tasks that were relatively labor intensive and having dozens of extra hands



*Figure 26.* Choosing a less used space in Alkuvoima yard as the bio-art site. Shades provided by the trees create suitable conditions for mushroom growth. Photo by Amir Abdi, 2021.

benefited greatly, in these cases the project used volunteer help. One of these tasks was collecting many stones from the riverbed 100 meters away from the Alkuvoima location, and building the fireplace with it. Since I had more than 15 volunteers I assigned half of the group to clear the wasteland in the yard where the fireplace was built later the same day and bio-mandala was installed.





*Figure 27. Collecting stones for creating the fireplace and installation foundation with participants. Photo by Amir Abdi, 2021.*

I did think of ways about how volunteers could benefit from this occasion in a mutual respective manner. Explaining about spiritual significance of stones used by many cultures such as Sami sacred stone sights, stonehenge, muslim worshipping place and pyramids of ancient egypt. These stories were shared while collecting the stones with the group. Also I hired a kitchen team to make oriental food for the whole group. And later in the evening arrange a documentary film screening about mushrooms called “Fantastic fungi” followed by Q&A panel where questions related to mushroom biology raised during documentary was answered by mycologist expert Joette.



*Figure 28.* Picture of secondhand market advertisements on instagram and facebook. Designed by Amir Abdi, Photo provided by Amari Kaura 2021.

Laboratory unit was done with help of Kaapa experts and consisted mainly of selecting mushroom strains, mushroom inoculation and signing agreement. The process was carefully planned and required much needed help from laboratory experts.

In line with the environmental aspect of the project, the recycling unit arranged a visit to the recycling center for collecting metal pieces and organized events such as pop-up secondhand day for citizens to sell and donate their unwanted fabrics.

Metal work units were in charge of welding the structure of the bio-mandala skeleton. Kasimir, as the main person in charge of welding, was happy to be able to help because regardless of having a professional degree he never used welding equipment after graduating several years ago.

Sewing unit had the duty of cutting and sewing donated and recycled fabric into the mandala shape and ready for the final inoculation process. Mandala making team was assigned stuffing sawdust and mushroom bags onto the metal structure with the help of sewed fabrics. Organizing weekend stay for ceremony volunteers included overnight stay for volunteers including food, transportation (car pooling) , dance party, sauna, ice bath, music. Conducting sacred ceremony units were asked to create right energetical and mental space with help of participants, offering dance and singing.

Installation unit with help of a few volunteers erecting the Mandala on the ceremony spot in full moon of August 2021. Social media unit were reporting the progress and update on the project through Instagram channel

[https://www.instagram.com/chatra\\_biomandala/](https://www.instagram.com/chatra_biomandala/)

Filming unit was in charge of video documentary production about the project, arranging interviews and filming different events from start to final delivery of the youtube documentary.

## Ethics

Art, science and scholarship must be free, free from religious, political, societal and other demands (Wolf-Knuts, 2016). Even though that is ideal, but for various reasons is not always followed and demands are made on the disciplines from outside (Wolf-Knuts, 2016). History presents many worrying examples of authoritatively insisted requests (Wolf-Knuts, 2016).

Play is free, perhaps that is not the case with art, science and scholarship.

Art, science, and scholarship are creative (Wolf-Knuts, 2016). A scholar's main work is to find new knowledge and specific conditions are designed to find this new knowledge which involves a creative process (Wolf-Knuts, 2016). Very often scholars and scientists trust intuition when he or she is asking where to find this knowledge, so the path to knowledge is a creative path (Wolf-Knuts, 2016).



Keeping in mind playfulness and creativity are my guiding moral values in this research. I try to keep art practices free from unrealistic demands from stakeholders, participants and organizers. And keep reminding these two core values frequently in different stages to myself.



*Figure 29. Fireplace decorated with flowers and participants' chalk drawings. Photo by Amir Abdi, 2021.*

Another important note originally adapted from the biomedical community, the principle of “no harm” states that no harm should come to research participants (Leavy, 2017). This protection is extended to the rest of the activities such as documentary making, community events and activities related to Chatra bio-mandala art work, documentary and research.



## Presenting research data

In this chapter I am analyzing research data produced during the artistic practices which



includes feedback on chatra-biomandala video documentary, participants feedback after the fire/cacao ceremony and the Chatra bio-mandala art piece. I use qualitative content analysis methods with the help of Atlati.ti research software. Atlati.ti helps me to locate, code and annotate within bodies of collected unstructured data. Next chapter begins with presenting general impressions of gathered data and then deepening analysis with selected data that provides valuable information for

this research paper.

*Figure 30.* Turkey Tail mushrooms started fruiting in October 2022 marking a successful laboratory procedure . Photo by Amari Kaura, 2021.

## Preparing the data

As a researcher, I recognize the significance of obtaining reliable and valid results from research data. While quantitative content analysis relies on random sampling or other probabilistic methods, qualitative content analysis deliberately selects texts to address research questions. Zhang and Wildemuth (2005) point out that qualitative content analysis can be used to examine various types of data. This approach is particularly valuable for exploring subjective experiences and perceptions related to art and spirituality, which are important themes in my research. By adopting a purposeful sampling approach, I can ensure that the data analyzed is relevant to the research questions and contributes to a deeper understanding of the complex and multi-dimensional nature of art and spirituality. My initial steps were collecting data from various sources such as participants' written feedback after the ceremony, video documentary comments from participants as well as online viewers, documentary feedback from broadcasting companies and finally sorting them all into a single text document for qualitative data analysis.

While collecting this data a set of questions appear: Firstly, do I need to summarize the feedback into its core message and academic writing format or leave it literally as they are? Secondly, do I remove the emojis expressions from collected data in order to focus on meaning? “Using qualitative content analysis, research examines how language functions as a form of communication while paying close attention to the text's context” (Hsieh & Shannon, 2005). In this case, I decided that analyzing exact copies of feedback will be the most useful and help to address my research question in more depth and details.

The unit of analysis refers to the basic unit of text to be classified during content analysis (Zhang & Wildemuth, 2005). Messages must be unitized before they can be coded, and differences in the unit definition can affect coding decisions as well as the comparability of outcomes (Zhang & Wildemuth, 2005). In my research analysis categorization is based on the target audience and their subjective viewpoint can reveal interesting findings. These categories are: (1A) Research data collected from online

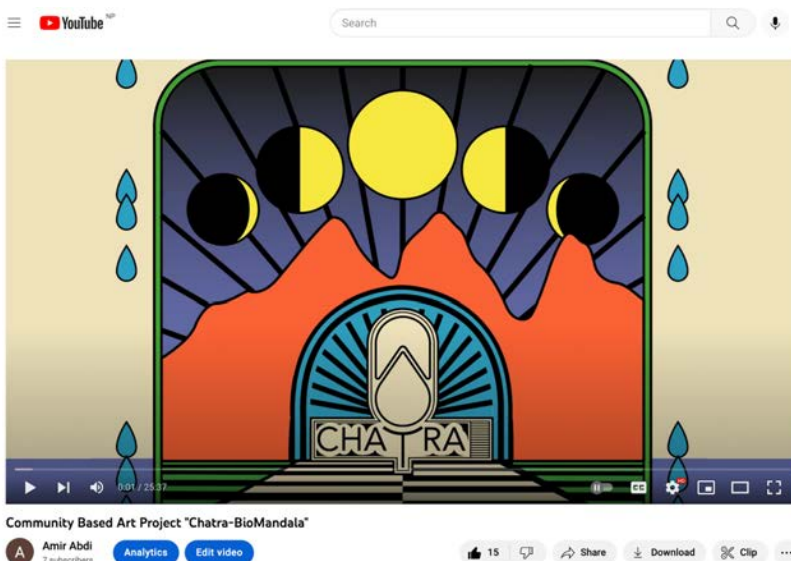
documentary viewers who are interested in the topic (1B) Data collected from outsiders, broadcasting companies who are decision makers whether this content is suitable for their mainstream audiences or not. (2) feedback from people involved in the fire ceremony event as participants or organizers.

Before diving deeper into data analysis let's look at the "Quick pattern finding in research data" sub-chapter. Results of quick content analysis which seems quantitative at first, but it's used to provide qualitative analysis as we proceed further and finally aim is to find the usage of the rating/feedback in an inductive manner.

## Research data related to documentary

A 25 minute documentary about the Chatra project was directed by me. This video was published on youtube video streaming network and it is one the two artistic outcomes that made it possible to share the process with participants after the community art event was over. In addition, a larger audience than participants who were interested in spiritual art topics watched the documentary and provided feedback.

Link to the video: [https://youtu.be/t57iZ3\\_zRdw](https://youtu.be/t57iZ3_zRdw)



*Figure 31. Opening screenshot for Community based art project chatra bio mandala documentary on youtube, 2022.*

I shared the documentary link with participants and also other groups of friends with interest in spiritual art. Generally speaking the feedback was positive and heartwarming but also provided valuable data for my thesis study. One of the participants from Finland shared her enjoyment of watching the documentary and commented that this artwork creates “a bridge between local shamanism with Eastern and Western thinking in a natural way.”, which reflects an important principle in my research that is inclusiveness and carefully not prioritizing any school of thinking over another.



*Figure 32. Screenshot of Community based art project Chatra bio mandala documentary on youtube, 2022.*

Artistic part of my research resulted in generating new knowledge on an individual level. This fact became vivid when a documentary viewer from the United States shared an inspirational story about coming across Turkeytail mushrooms on her recent hike in Hawaii. She said she was wondering about possible uses of these mushrooms and with help of watching the documentary she could recognize the mushroom and characteristics.

The story of the United States hiker discovering Turkeytail mushrooms during hike serves as a reminder of the importance of environmental awareness. As we go about our daily lives, it's easy to forget the intricate connections between humans and nature. However, even small experiences like stumbling upon mushrooms on a hike can inspire us to take a closer look at the environment around us. The story also highlights the significance of preserving natural habitats and biodiversity, as every species has its own unique role in the ecosystem. By promoting environmental awareness, we can learn to appreciate and protect the natural world, ultimately ensuring a sustainable future for generations to come.

A few documentary viewers expressed their desire to participate in such an event, and be able to cultivate positive feelings to counter effect their mental struggle and fears. One of those viewers was from Minnesota and she expressed her wish to participate in a fire ceremony after watching the documentary. She found the concepts in the program well explained with beauty and simplicity. Additionally, reflected that she doesn't make much art and activities that make her happy and she thinks it's because of overthinking and fear from childhood traumas.

A community artist can lead the participants to use their fears or overthinking as fuel for creating art and realizing those emotions. Artistic community based artwork can provide a safe space and time to reflect into one's human journey and shine light on difficult corners of existence. According to Hieb, creating art by participants should not only be associated with their aesthetic value but the invisible inner journey of participants with help of a trained facilitator to reflect and develop self in a way that usual conditioned everyday life doesn't allow us (Hieb, 2005).

Another strong focus in this art project is reflecting today's democratic and multicultural society which is also highlighted in the Chatra bio-mandala documentary. Huhmarniemi interview explains: In the past public art was ordered from persons in power such as king or queen or dominant religion but in today's society the power relation has changed and public art is best in reflection of the same phenomenon (Abdi, 2022).

## Research data related to the fire ceremony

A day after the ceremony, one of the participants contacted me to share her personal relevant story about the ceremony. She added the best part of the ceremony was releasing and praying to a bowl of amanita mushrooms. Ceremony felt powerful and after arriving home she went to the post office to get Ukon Pakka tarot cards which she ordered earlier. The first card that she picked was a fairy ring or a ring of amanita mushroom. The synchronic events in the ceremony and afterwards made a meaningful impression on her.

Founder of Alkuvoima's feedback about the bio-mandala artwork summarizes her feelings about this artistic co-creation with Alkuvoima community : "The mandala is amazing. I see your vision there, the structure of the universe, the patterns and sacred geometry, the fabric of consciousness, history and story of humankind - wrapped around everything! And the mushrooms that eventually eat it all, leaving only the structure, the sacred geometry, the new codes of infinite creation to the next wave, I am so happy that you made this with Alkuvoima".

Despite the fact that Merina wrote her feedback without any encouragement from me, I also reached out to participants and asked them to write down their feelings about the ceremony. A volunteer and participant who had a positive experience wrote back that it was his first experience participating in such an event, however, he thought the overall vibe was very good. The ceremonial masters kept things very organized and smooth and the cacao tasted very good, it got a very calming feeling from the drink that lasted the rest of the day. He continues It would be nice to experience such an amazing event even more deeply, and maybe help to organize one in the near future. The last part of feedback indicates the craving for similar content after experiencing first participatory art.

Co-producer and also cacao ceremony facilitator shared her thoughts as a facebook comment. Amari Kaura states "There is no provocation or emotional unprocessed



trauma response present in this production, and yet it ruffles the mind and gently challenges the viewer with atomic force.” Although I found it challenging to stay neutral at times, especially dealing with spiritual topics considering participant’s ethnic diversity and background, the ethical guideline of the project helped me to bring the focus on our common human roots rather than differences. Amari adds Chatra bio mandala is an innovative project that is building a tangible bridge between nature, science, spirituality, art and community (Kaura, 2022). This production is a solid performance of an updated, modern, yet historically respectful and thorough “good message” (Kaura, 2022).

There was a moment right after the ceremony when all the ceremonial activities, dance, music and rest of the planned activities were over spontaneous sharing circle was formed by participants, it felt the participants were filled with strong emotions and willing to expands that most people started to share their experience to the group without any encouragement from me. There were four Indian participants and one of them shared how interesting it was to see something originating from India in Finland, one of them said in their region they call this activity, offering to fire, “Yoga” and normally is done by Indian priests.

Many people provided positive, inspiring feedback although I can not recall much of the feedback details from the sharing circle. Because it was not planned I don’t have any research data except my fading memories so I reached my wife who was present in the ceremony and asked if she remembers any of the details, but she also does not remember after more than a year has passed from the event. It makes me question that does it matter to create beauty when the passage of time will slowly fade away the memories. I personally think it matters, if we need to travel from one point to another in linear time, wouldn’t it be better to travel a joyous journey supported by kindness and love? I found it difficult to find sponsors who are willing to provide funding and support toward this kind of project. Sustaining our material needs is taking so much time that we don’t have time left to take care of our intangible needs.

## Quick pattern finding in research data

In order to get a general feeling of collected feedback I labeled each feedback base on positive, neutral and negative with help of the research software.

The collected feedback comes from 14 different sources, 3 feedbacks are from participants after the ceremony, 9 feedback from online comments and 2 feedback from broadcasting companies. Based on data analysis, 12 feedback are marked as positive, no neutral answer and 2 feedbacks are indicated negative. All the 12 positive feedback come from participants and online viewers interested in the subject matters and both negative feedback come from broadcasting companies.

## Processing the research data

Working with research analysis software Atlasi.it, provided a convenient method to code and find patterns from my research data. The software is very simple and with only using basic functions it is possible to extract patterns and codes from the data or label parts of text with predefined codes. Although, did not limit my exploration with predefined codes, instead I started exploring and coding with an open mind and embracing the fact that the codes will develop as analysis progresses. This approach is also called conventional content analysis and it's beneficial when there is limited research theory and literature available on the topic, therefore researchers avoid previously defined and opinionated categories and let the research process determine codes and name of categories (Hsieh & Shannon, 2005).

## Why participants were thankful

Thanking or praising were evident in all of the feedback. These praises were mostly recognized by popular phrases, for example beautiful, amazing job, powerful ceremony, brilliant work, magical, love this, nice experience and the like. Nevertheless, most participants take time and start to elaborate on their emotions and thoughts, hence, capturing a wider assessment beyond popular phrases helps me to touch the core of this interaction. A deeper evaluation follows participants feedback in most cases, this

evaluation demonstrates the inner need for justifying the thanking which comes from participant or documentary viewer to creator of artistic part.

The thanking in positive feedback can be seen as objective appreciation where the participant is thanking because of the direct effects of the event on him/her. It almost like this experience created something inside which feels good and the thanking comes from the inner direction toward this experience that is provided. sometimes objective evaluation with some description on why I think this experience was so great. Transition from I thank you and praising it's usually very positive and comes from generalizing the idea of what this type of work or event should be like.

While finding repeating patterns in thanking, the notion of thanking the artist develops into thanking how this art makes me feel. These feelings have less to do with me as the creator of the event but more with the participant's inner feeling. Providing space and time for this inner contentment is shaped as a result of accessing cultural resources and diverse schools of thoughts that the artistic part inherits.

Conversely, two rejection emails from broadcasting companies who refused airing the documentary begin with a "thank you" section followed by justification for rejection and lastly "wish you well" section. This thank you, even written identical to the ones mentioned previously is a part of formal writing but it's inner meaning is expressed in justification section, in particular, "documentary does not meet any of the professional requirements of the media industry" from finnish broadcasting channel or "it doesn't fit our programming" from international channel. Moreover, these two messages contain thank you yet it is used as formality and imagining not finding value in the documentary content for their audience is the main point.

While thank you used by participants is a sign of bounding, and it does not end with just thanking but it turns into appreciation. As indicators, there are many emojis used that are showing affection and happiness as well as many buzzwords such as brilliant, beautiful, simplicity, grateful, very good vibe and the like that are used to make sure

thanking appears as genuine thanking and inner emotions are expressed and communicated well. This gentle positive communications could be interpreted as a way that participants are signaling their association and belonging to the community. In brief, the feeling of inclusion and belonging to an uplifting and positive event are met.

During a qualitative analysis session at University of Lapland, a fellow researcher originally from an Asian background shared the story of showing the Chatra bio-mandala documentary to her Finnish spouse. Her spouse's remark was roughly marked as a hippie crowd in contrast to her experience that these types of events are very familiar to her oriental traditions. The cultural resources that are available to audiences familiar with similar spiritual/religious traditions can act as a catalyst for acceptance.



*Figure 33. Preparing for filming in a Buddhist temple in central Finland. Photo by Anu Abdi, 2021.*

## Art as a spiritual experience

My documentary film has received two opposite types of feedback, on one side positive by participants and people interested in the subject matter and on the other side negative by people outside of the community. I showed the documentary film to one of the Tibetan monks in Nepal who is an artist as well. He expressed his liking for the subject matter as a “unique way of seeing” and in response I explained to him lack of interest in a wider audience. For him this phenomenon seemed very natural, without any pause he answered it is very difficult for people from outside to connect with the process specially if they are unfamiliar with the topic. Viewers need to watch the documentary multiple times to start to understand because they are seeing it out of context. The lack of personal connection provides an explanation for the sincere experience of participants that does not align with public opinion.

These spiritual artistic events can be meaningful for participants and a good number of audiences interested in the subject matter however because of lack of having direct experience it won't have the same impact on outside viewers. Funding these types of artistic research can be difficult for this reason but also it is important to be funded and provide valuable services for those waiting on a crossroad of life for directions.

In brief, while the spiritual art events can hold great meaning for the participants, the lack of personal connection makes it difficult for outside viewers to understand and appreciate. This phenomenon has been observed through the feedback received for my documentary film. While funding for such research can be challenging due to limited audience appeal, it remains important to provide valuable services for those seeking spiritual guidance through artistic expression.



# Conclusion

My purpose for conducting this arts-based action research was exploring a relatively under researched topic of interconnection between spirituality, community art and bio



art. Searching within academic libraries found very little literature about the nexus of bio-art, spirituality, environmental art and community art. This exploratory research intended to generate knowledge and look at bio-art from different perspectives to build and support philosophical and practical relations between art, spirituality and biology.

*Figure 34. Chatra bio mandala. Photo by Amir Abdi, 2021.*

For a very long time I was holding onto an assumption that research is done by people who wear white overalls and measuring numbers day in and out, but upon studying my master degree I learned about artistic research and ways of making practical changes while doing artistic research.

I conducted a literature review and came up short with literature that covers my thesis topic. Despite my topic being narrow and new, I found a number of good materials in different categories such as research design, bio-art, spirituality in art, environmental art, community art, to support my thesis research development. Sometimes I had to narrow my search by database, language, topic, peer reviewed in order to get a better and more focused result. I have not found a single literature that covers entirely my thesis topic but referring to different disciplines can make a coherent development of methodology plan to support the philosophical foundation eventually.

Since I had an under researched topic, using exploratory research was a good way to go about learning about it. Exploratory research helps to fill the gap in my knowledge about a new or under researched topic, exploratory method looks at the topic from various angles to generate brand new insights (Leavy, 2017). My aim is that this research prompts further investigation and the development of an appropriate methodological plan. This initial research had the potential to point at research questions, methods to be used for data collection, and participants while providing some answers.

While realizing artistic part during the Chatra bio-mandala process, I created a participatory art experience among dozens of participants and volunteers which resulted in creation of bio mandala made with mushroom organisms, the creation process was recorded in a documentary film format published on youtube platform and also in Instagram social media channel. The data collected from various sources was studied and analyzed in an action based art research method to discover more knowledge about effects of these practices on spiritual and environmental awareness for participants.



*Figure 35. Mushroom growing on Chatra bio mandala. Photo by Amir Abdi, 2021.*

Mushrooms are growing in the bio mandala installed at Alkuvoima, for a few years to come, as estimated by lab manager expert. Thinking of the future, I will continue this installation after this project development. The purpose of this work of art was to create a counterweight to the general narrative, and to provide a different perspective on this natural phenomenon uniting consciousness; to one that is not based on fear, but feelings of inclusion and action.

Comparing similar results to the research study *“Forest encounters: Communication with Trees, Stones and Powers of Nature”* (Huhmarniemi & Joy, 2022) my research confirms participatory art practices by various art based and spiritual exercises improves wellbeing of participants. My conclusion is that by observing and participating in a work of art we get deeply into the intuitive experience of connection and community.





*Figure 36. Chatra bio mandala. Photo by Amir Abdi, 2021.*

On a personal level, I have acquired new abilities, inventiveness, and new modes of communication. This research has also opened my eyes to the idea of using art and artistic practices to address the societal problems that plague us. It has motivated me to work for the betterment of both people and the environment.

Participatory art events have the potential to create a profound spiritual experience for those involved. By engaging in a collective act of creation, individuals can transcend their sense of self and become part of something greater than themselves. This is particularly true when the art event is focused on environmental issues, such as the case with the "Chatra bio-mandala" project. Working with living fungi and recycled materials raises awareness about environmental sustainability but also highlights the interconnectedness of all living things. This can lead to a deepening of our understanding of our place in the world and a greater sense of reverence for the natural world. As we become more aware of the impact of our actions on the environment, we

are also more likely to take steps to reduce our ecological footprint and live in a way that is more harmonious with the planet.



# References

Abdi, A. (2022, February 18). *Community Based Art Project “Chatra-BioMandala”* [Video]. YouTube. [https://www.youtube.com/watch?v=t57iZ3\\_zRdw](https://www.youtube.com/watch?v=t57iZ3_zRdw)

Wills, E. (2020, May 23). *Introduction to participatory action research* [Video]. YouTube. Retrieved March 16, 2023, from <https://www.youtube.com/watch?v=1UEzfp7ysa8>

Bechsgaard, G. (2013). *The gift of consciousness : Patanjali’s yoga sutras (book one)*. Cambridge Scholars Publisher.

Beloff, L. (2013). Conflicts of Value in Maintaining Biodiversity and the Construction of Water Power. Public Opinion and Contemporary Art as Interventions in Nature Conservation. In L. Beloff, E. Berger, T. Haapoja (Eds.), *Notes on experience in the field* (pp. 38–53). The Finnish Society of Bioart.

Chah, A. (2005). *Everything arises, everything falls away: Teachings on impermanence and the end of suffering*. Shambhala Publications.

Chödrön, P. (2001). *The places that scare you: A guide to fearlessness*. Shambhala Publications.

Ekhtiari, H [Deep Podcast]. (2021,11,11). *Biography of "Friedrich Nietzsche": the story of a superman*, [Video] Youtube.

Elements-of-design-by-gf-brommer-crystal-productions-vhs-(1996)  
<https://archive.org/details/elements-of-design-by-gf-brommer-crystal-productions-vhs-1996> Addeddate 2022-06-24 20:17:29

Gibson, P. (2018). *The Plant Contract*. BRILL.

Gray, C., & Malins, J. (2016). *Visualizing research: A guide to the research process in art and design*. Routledge.

Heyd, T. (2016). *Encountering nature: Toward an environmental culture*. Routledge.

Hieb, M. (2005). *Inner journeying through art-journaling: Learning to see and record your life as a work of art*. Jessica Kingsley Publishers.

Hsieh, H. F., & Shannon, S. E. (2005). *Three approaches to qualitative content analysis*. *Qualitative health research*.

Huhmarniemi, M., & Joy, F. (2022). *Forest encounters: Communication with Trees, Stones and Powers of Nature*. InSEA Publications.

Huhmarniemi, M. (2021). Forest talks to us – art and coping with forest disputes. *ART Education VISUAL Journal IMAG*. DOI: 10.24981/2414-3332-11.2021-8

Huhmarniemi, M. (2013). Conflicts of Value in Maintaining Biodiversity and the Construction of Water Power. Public Opinion and Contemporary Art as Interventions in Nature Conservation. In L. Beloff, E. Berger, T. Haapoja (Eds.), *Field\_Notes: From Landscape to Laboratory* (pp. 54–62). The Finnish Society of Bioart.

Jokela, T. & Huhmarniemi, M. (2018). Art-based action research in the development work of arts and art education. In G. Coutts, E. Härkönen, M. Huhmarniemi & T. Jokela, (eds.), *The Lure of Lapland: A Handbook of Arctic Art and Design* (s. 9–23). University of Lapland. <https://lauda.ulapland.fi/handle/10024/63653>

Jokela, T. (2019). *Arts-Based Action Research in the North*. Oxford Research Encyclopedia of Education.

<https://oxfordre.com/education/view/10.1093/acrefore/9780190264093.001.0001/acrefore-9780190264093-e-522>

Jokela, T., Hiltunen, M., & Härkönen, E. (2015). Art-based action research—participatory art for the North. *International Journal of Education through Art*, 11(3), 433–448.

Jung, C. G., Von Franz, M. L., Henderson, J. L., Jaffé, A., & Jacobi, J. (1964). *Man and his symbols* (Vol. 5183). Dell.

Kac, E. (2015). *Signs of life : bio art and beyond*. Cambridge, Massachusetts: The MIT Press.

Kaura, A. (18 feb. 2022). Tangible bridge between nature, science, spirituality, religion, art and community. Facebook, <https://www.facebook.com/ameerabdi>. Accessed 22 January 2023.

Kandinsky, W. (1972). *Concerning the spiritual in art*. Courier Corporation

Lanham, A (2016,5,9) *Shakespeare Contra Nietzsche by Andrew Lanham*. Marginalia: Deep learning for digital age.

[www.themarginaliareview.com/shakespeare-contra-nietzsche-andrew-lanham/](http://www.themarginaliareview.com/shakespeare-contra-nietzsche-andrew-lanham/)

Leavy, P. (2017). *Research design: Quantitative, qualitative, mixed methods, arts-based, and community-based participatory research approaches*. Guilford Publications.

Macbeth, S. (n.d.). *Participatory Action Research | Participatory Methods*. Retrieved November 3, 2022, from

<https://www.participatorymethods.org/glossary/participatory-action-research>

Majcen-Lin, O. (2017). William Myers, *Bio Art–Altered Realities*. London: Thames & Hudson. <http://dx.doi.org/10.25038/am.voi14.209>

Matarasso, F. (2019). A restless art. *How participation won, and why it matters*. Digital edition. London: Calouste Gulbenkian Foundation.

Popova, M. (2014, June 2). *Kandinsky on the Spiritual Element in Art and the Three Responsibilities of Artists*. The Marginalian. <https://www.themarginalian.org/2014/06/02/kandinsky-concerning-the-spiritual-in-art/>

Shoja, M. M., Hoepfner, L. D., Agutter, P. S., Singh, R., & Tubbs, R. S. (2016). History of the pineal gland. *Child's Nervous System*, 32(4), 583-586.

Wills, E. (2020, May 23). *Introduction to Participatory Action Research* [Video]. YouTube. <https://www.youtube.com/watch?v=1UEzfP7ysa8>

Wolf-Knuts, U. (2016). Art, science, and religion. *Approaching Religion*, 6(2), 4-5.

World Yoga Institute, 2020 , “Un-coloring your thoughts, cont. – Yoga Sutras (1.6 – 1.11)” <https://worldyogainstitute.org/2020/05/19/the-yoga-sutras-of-patanjali-part-3/>

www.wisdomlib.org. (2022, November 6). *Chatra, Chātra, Chatrā: 23 definitions*. <https://www.wisdomlib.org/definition/chatra>

Zhang, Y., & Wildemuth, B. M. (2005). *Qualitative analysis of content*