THE HOSPITAL OF THINKABLE BOUNDARIES Methods for Noetic Architectures

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ABSTRACT

From its conception, architecture has been intimately entangled with health. To construct healthy cities, theories of medicine were commonly used as a foundation to theories of architecture. During the 20th century

and the threat of tuberculosis, the modern movement rendered architecture as a 'curing machine.' Characterized by its clean lines, deliberately stripped from any 'unnecessary' fabrics and ornament, the aesthetics of modern architecture was seen as a direct response to the illness. The 21st century is determined by the acceleration of neurological disorders. 'Disorders' recognized as depression, eating disorders and burnout syndrome, to name a few. If the search for health historically has produced novel architectures and aesthetics, what are the architectures of neurological disease? This thesis investigates how the diseased body responds to the modern 'pathological' configuration; how perceptions, emotions, and relations affect such conditioning. In the quest to heal a suffering body, this paper explores how an investigation of mental healing might inform and shape new architectural sensitivities. To what extent is architecture capable of *doing* healing? What can be the architectures, landscapes, and infrastructures for healing in the mental health crisis of the 21st century? What methods, systems of knowledge and modes of production can be derived and applied on this topic going forward? Through written personal pieces followed by and related to the reading of literary references in philosophy, theory, and psychology, while positioning itself in dialogue with practices, meanings and ideas learned from non-western knowledge-contexts, this thesis investigates how different cultures responds to the topic of health and healing through the themes of perception, cognition and consciousness.

Keywords:

New materialism, cognition, perception, healing, ritual, noetic studies, mental health

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BACKGROUND

The Body of Architecture

From its conception, architecture intimately relates to medicine and health. For Vitruvius, who devoted a considerable part of his *Ten Books on Architecture* to the topic of health, architecture was to mediate the 'three attributes' derived from the body: *firmitas, utitlitas* and *venustas*– solidity, usefulness and beauty.¹ The internal composition of the body was reflected in the composition of buildings. It was common that theories of medicine were 'used as a foundation to architectural theory' and conversely, architecture was reflected in medicine. The construct of 'healthy cities' was a primary task for the Greek-Roman architects.²

¹ "Commodity, firmness, and delight: the ultimate synthesis," Theory of Architecture, Britannica, last modified February 2nd, 2021,

 $[\]underline{https://www.britannica.com/topic/architecture/Commodity-firmness-and-delight-the-ultimate-synthesis.interval and the synthesis and the$

² Beatriz Colomina, X-Ray Architecture, (Zürich: Lars Müller Publishers, 2019), 13-14.

During the 20th century and the omnipresent threat of tuberculosis, the modern movement revived the concept of the healthy city, rendering architecture as a 'curing machine.'³ The aesthetics of Modern architecture, characterized by its clean lines and deliberately stripped from any 'unnecessary' fabrics and ornament, was a direct response to the prevalence of tuberculosis. This is the central argument of Beatriz Colomina's book *X-Ray Architecture* (2019). She posits that illness, more than new materials and technologies, is what modernized architecture.⁴ Rather than realizing ideas from architectural theories, Modern architects took inspiration from doctors, nurses, and medical spaces. For instance, the elimination of ornament was to reduce any accumulation of dust, and the design of chairs would promote breathing.⁵ These guiding principles were not just adopted in medical spaces but became a model for everyday life and into the architecture of housing. The body of the architect became inseparable to 'the patient', and this was reflected in many architects works.⁶

Writing this, we leave the COVID-19 pandemic behind, and even if it might feel like that right now, the 21st century is *not* determined by the pandemic; it is determined by the acceleration of neurological disorder.⁷ Even though the pandemic has increased the general prevalence of mental illness as well as its symptoms (anxiety disorders, depression, eating disorders and burnout syndrome, to name a few) the western society has experienced a surge in mental illness in the past 50 years. In *The Burnout Society (2015)*, Byung-Chul Han holds that burnout syndrome is the very expression of an 'exhausted, burn-out soul', spurred by the contemporary imperative to achieve, or what he calls 'the new commandment of late-modern labour society.'⁸ 'Causes' this thesis will set out to investigate. Because of the innate 'mental' aspect of psychical conditions, problems are harder to notice, harder to define and harder to treat. In general, these issues are characterized by 'abnormal thoughts, perceptions, emotions, behaviours and social relations.'⁹ Despite the inflation of mental illness in the last decades,¹⁰ Western science seem to struggle to find ways of bettering a suffering population. Here an outlook on alternative knowledge contexts is proposed. Stemming from a personal interest and encounter with shamanistic healing practices, or noetic practices, this thesis will look at such non-western traditions, where healing is not just considered medicinal but ritualized, ceremonial, temporal and collective.

Architects have historically been deeply involved in the design of health, working in close collaboration with emerging medical knowledge, and as we face the crisis of mass-mental-illness, Colomina urges architects to 'wake up and do it again!'¹¹ If the search for health can produce novel architectures and aesthetics, what are the architectures of neurological disease? Where is the hospital of depression? Shifting the focus from the Modern mind to the sentient body, this thesis investigates how the body reacts to the nature of mental illness that are perceptions, emotions, behaviours, and social relations. Exploring how, in the quest to heal a suffering

³ Colomina, X-Ray Architecture, 90-93.

⁴ Drew Zeiba, "Architecture and illness: Beatriz Colomina on tuberculosis, modernism and Covid-19," *PIN–UP 28*, Spring Summer 2020, <u>https://pinupmagazine.org/articles/interview-beatriz-colomina-x-ray-architecture-drew-zeiba</u>.

⁵ Colomina, *X-Ray Architecture*, 62-63.

⁶ During the competition of the tuberculosis Sanatorium in Kinkomaa in 1927, Alvar Aalto himself had been sick and 'claimed that having to lie in bed for an extended period of time had been crucial to his understanding of the problem.' Colomina, *X-Ray Architecture*, 65; Aldo Rossi also described his experience in illness in Scientific Autobiography, p

⁷ Byung-Chul Han, *The Burnout Society*, (Stanford: Stanford University Press, 2015), 1.

⁸ Han, *The Burnout Society*, 10.

⁹ "Mental Disorders," World Health Organization, last modified November 28th, 2019, <u>https://www.who.int/news-room/fact-sheets/detail/mental-disorders</u>.

¹⁰ "Mental Health," Health Topics, World Health Organization, <u>https://www.who.int/health-topics/mental-health.</u>

¹¹ Zeiba, "Architecture and illness: Beatriz Colomina on tuberculosis, modernism and Covid-19," *PIN–UP 28*, Spring Summer 2020, https://pinupmagazine.org/articles/interview-beatriz-colomina-x-ray-architecture-drew-zeiba.

mind – which we know is inseparable from a suffering $body^{12}$ – we may form new architectural sensitivities. To what extent is architecture capable of healing? And what can be the architectures, landscapes, and infrastructures for healing the neurological crisis in the 21st century?

APPROACH

The Architect and the Patient

What led me to pursue this project stems from my personal experience of healing. This journey started about ten years ago when I was on the road to recovering from eating disorders. I suffered with bulimia for several years starting in my young adolescence as my body – and mind – started changing. My self-esteem was severely wounded from insults and mental abuse from my first real romantic relationship, and at the same time I felt neglected and forgotten in my large family of (then) seven siblings in between a divorced family, even though I performed in school and other activities to perfection. In search for love and affection, I was the achievement subject embodied. The modern pathology materialized. The only way I felt that I could control this anxious heavy situation, was to restrain my eating and control my bodily appearance. I punished myself for not being thin enough, for not being pretty enough, for not being *enough*. Slowly I began believing the ideas that my punishing voice kept telling me - that I was not enough, that I was not worthy, that I didn't deserve happiness, love, and essentially that I didn't deserve *life*.

My experience with the Western medical system started that same day when the rest of my, tiny but substantial, world found out about the disease. One day, during a sports lesson of my first year of high school, I fainted from fatigue and was taken to the hospital. I would never admit that I was sick, at least not at that point. It was just a procedure I was used to at that time, structural behaviors that I had developed over time to handle a constant tide of pressure. After the day of fainting, I started going to regular meetings at the hospital for treatment. The meetings were mainly concerned with my bodily weight and my caloric intake.

¹² See Antonio Damasio's discourse on Descartes where he opposes dualism and posits that the mind cannot be separated from the body because of the relation between rationality and emotion, presented in his Somatic Marker Hypothesis. Emotional processes is what guides rationality and behavior, not the other way around. The mind is embedded in a network of bodily mechanisms, innately inseparable with its surroundings. Antonio R. Damasio, *Descartes' Error: Emotion, Reason, and the Human Brain,* (New York: Avon Books, 1995), 248-250.

They said that, in order to get well you first need to reach your 'normal' weight, which was calculated from a BMI sheet. After the first meeting I left the hospital with a list of calories that I should eat every day and a 'goal' weight that I was to reach for the next meeting the coming week, basically what I had been doing up to this moment but with different smart phone apps and endless diary lists. Every week I could observe every kilo I had manage to lose, which was very easy for me to keep track on considering the intrinsic list of calories and the weekly weigh-ins that my caregiver – the hospital – so fittingly provided me with. Each meeting looked the same. Me and my mother (or father, but usually my mother) sat down to wait outside the BUPsection,¹³ a section of the hospital, which was located in the outskirts of the facilities. In the small reception area where other thin girls also sat and waited to be called with their parents. We exchanged looks on each other. Sometimes I felt inspired, I could get a boost from seeing someone who was larger than me because this meant that I was succeeding. And sometimes I felt frightened. Frightened by the bones penetrating the skins of the pale bodies. Frightened by the translucent oxygen tubes entering their noses as they sat, lethargic but combative. They, just like me, were at war. My name was called, and I entered the heavy automatic safety doors with my mother. Leading us was my assigned caregiver, who ironically had the same name as my mother. She was a thin, petite woman. I remember being jealous of her bodily achievements. She never spoke to me directly but to my mother *about* me.

First, we proceeded with the weigh-in. This took place in a tiny wardrobe-like room. One of the walls was covered in cupboards, and on the gavel wall there hung a mirror in front of the main attraction – the scale. I took my shoes and stripped down to my underwear and stepped onto the scale – synchronously my biggest fear and desire – while my caregiver observed us from behind, making sure she could observe the numbers correctly. Every time I had lost weight she sighed disappointedly, probably louder then she thought, while the demons of my insides celebrated with an evil, joyful laughter. The battle between my illness and the rest of the world could successfully continue. I say illness because that is what an eating disorder is. It's scary how little is left of you. And it's even more frightening how fast it goes once it's rooted, and how little you are able to control the progression. In hindsight, this focus on measuring my body even more, resulted in the disease accelerating, making me considerably worse. Bulimia Nervosa developed to its more lethal sister, Anorexia Nervosa. *I*, however, continued to feel invisible as my being was further reduced to a number on the scale.

After the weigh-in, we continued into a carefully decorated therapy room where my mother was waiting nervously to receive the results. Each time the numbers were going in the wrong direction we got new instructions on how to adjust the caloric intake or make sure I followed the food schedule. This usually meant increasing the supervision during the meals (and in between meals) or restricting any freedom I had to move outside my house, to make sure I wasn't burning any calories, because clearly something was not working. My mother, who from the hospital's point of view, had failed to look after me, became the punching bag. Until this day I am deeply sorry that she had to take the painful responsibility of me during this time, because looking back, there was nothing she could do.

In Sweden, as in most Nordic and Western countries, what is depicted here is the standard procedure for intermediate-level eating disorder.¹⁴ Unless the patient is severely ill, that is at a weight which puts the patient in fatal danger, the treatment predominantly takes place at home, with one of the parents as the main

¹³ BUP stands for Barn- och Ungdomspsykiatri, which translates to Child and Adolescent psychiatry.

¹⁴ "Clinical guidelines," Swedish Psychiatry Association, last modified May 2020, <u>http://www.svenskpsykiatri.se/wp-content/uploads/2020/05/SPF-kliniska-riktlinjer-%C3%84tst%C3%B6rningar.pdf</u>.

caregiver. For almost a year, my mother, without any training or insight into how to treat someone with an eating disorder, put her life on pause to take care of me. Along with a treatment of the anti-depressant Fluoxetin, I sporadically received individual CBT, Cognitive Behaviour Therapy and for a period I was able to join a semi-structured group therapy session with other patients. The latter was unfortunately very destructive as the main discussion points led to the patient group comparing different methods and tricks for losing weight.

Thankfully, my illness never reached the point where I had to be admitted. What in the end helped me towards the path of recovery, was a conversation with a friend of mine that had been in the same situation, even though I know she still struggles with the aftermaths of her condition. In my darkest moment of the disease, after a stressful Pizza-incident, I contemplated whether the life I that was living really was worth living, because after all, I wasn't really *living*. Each day was only 'accomplished' if the illness won. I had no voice. I felt misunderstood by my family. What started out as an attempt of attention and acknowledgment, had now gotten out of hand. It had developed to something that I couldn't control. This was also the first moment I truly understood that I was sick. This type of disease and rigid schedule means no flexibility. I was incredibly lonely because missing high school led to me loosing most of my friendships. The disease had disconnected me from any social contexts, any joys, any normality. Every waken moment was about the illness, planning on what to eat and what to not eat, how to manipulate people around me into letting me skip a meal, how to detach myself further from any emotion or caretaking, how to get rid of anything in my life that wasn't serving the illness, and the demon on the inside was flourishing. Every day I was celebrated for being such an outstanding, submissive character. And at the same time, all I was left with was deep anxiety, destructive behaviours, perfected daily routines, total loneliness, and anger towards everyone 'on the outside'.

All I was left with was the illness itself. It had taken over. It had taken every bit of life.

There I was. Laying in my childhood room, in the bed that I had painted myself a few years earlier, contemplating to end my own life. Maybe it was for the better. I had destroyed everything, all relationships, all meanings, all life. Nobody would probably notice anyway. Who would even care if I was gone? The dialogue between the illness and the tiny part of me who was still healthy went on and on. Fortunately, for some magic reason, a part of me saw this as a crossroads. I had a choice, or rather, I had two choices. I could either end this life or start living another life. The latter meant, quickly recognized by the part of me that was the illness, that I would have to start cooperating. For all *she* was, she was not in approval of this direction and would rather have seen me dead. The words of my friend echoed as I drifted into sleep, 'only you can heal yourself'. The next day I woke up and the decision was made.

I was going to live.

Perhaps it was the same competitiveness and stubbornness that had gotten me sick in the first place that pushed me to not give up. I have also realized that the fact I had so many siblings helped. There was a small soccer-team that would miss their sister. A large familiar structure where, even if you couldn't talk to your parents, you could talk to someone.

From the moment I refer to as 'rock bottom' I was able to start my recovery. That is, I could slowly accept the weight increasing on the scale at the hospital. This wasn't a straight path of course; it had a lot of setbacks and defeats, and fights and outbreaks, wars that was won and wars that was lost. But around one year after rock bottom, I reached my 'normal weight'. From the hospital's perspective, I was considered 'cured' and was discharged abruptly from the system. And there I was, alone again. 'Evidently' I was now 'cured', but was I feeling better? I had taken a huge leap towards healing with the slow acceptance of my weight, started with

the defining realization that I wanted to live – but how to live? I had promised myself to never purge again because for me, that was a symbolic sign that the disease was still alive, but what other tools did I have?

If my experience of the medical system is representative, which recent journalism shows,¹⁵ it suggests that the possibilities for improving the experience for patients are vast. Global statistics reports that the 'success-rate' in curing or healing an eating disorder – and then only in the regard of reaching 'normal' weight – is around a third,¹⁶ leaving many incompletely treated and helpless to an often life-long suffering. This, I know something about.

The following years I struggled in silence with the disease. Rather than the typical signs of an eating disorder, like purging and weight loss, it was articulated as depressive disorder with long periods of dispiritedness and discouragement. And even though I suffered, on a daily basis, episodes of anxiety and body dysmorphia, I had made a firm promise to myself to not 'do something about it'. This was painful. Internally and externally, there was a monumental discrepancy. I wasn't *feeling* a lot better, but from the external perspective of the system I was supposed to be cured. This created a lot if inner dialogue, confusion, and doubt. The disease was lurking in the dark corners of anxiety, waiting for me to crack. If I didn't watch out, it might have pulled me back into its firm grip, into the shadows.

A few events accelerated my betterment – if only for shorter periods. Like falling in love or beginning architecture school. These events would raise feelings of connection, kinship and belonging, providing a sense of context. Anything that reduced my destructive thinking was a positive. The less space was given to the illness, the smaller it became. However, nothing is permanent, and I still struggled with destructive behaviour for many years, compensating for meals with exercise and fasting, punishing my body with self-loath. The never-ending problem of self-esteem. The hollow absence of love. The disconnection between my rational, structuring mind and my useless, hideous body I couldn't overcome. Of this I didn't know how to heal, or even feel better. During this time, I looked for help in different places: Cognitive Behaviour Therapy, Coherence Therapy, Psychoanalysis and Psychodynamic Therapy, and Group Therapy. I went to civic practices and private practices. I read self-help books and tried mindfulness techniques, but the structural boundaries of my illness I could never truly exceed myself.

Then, around six years ago, after a horrible winter, I got in touch with a person that a friend of mine recommended. This person was, as I was to find out after the third session, not just an educated psychotherapist but also a trained 'shaman.' After the third session, she proposed that I joined what she called 'ceremonial work'. I was intrigued and desperate. After some researching and talking to friends who had been through such ceremonies, I emailed the shaman to reserve my spot.

Following my decision was a month-long preparation where I was encouraged to practice awareness, meditation or yoga while trying to be open to whatever thoughts and feelings that rose to the surface. Two weeks before, I was to follow a special diet, removing substances like coffee, tea, tobacco, and sugar, while trying to eat plant based. The day before I found myself incredibly nervous and started to doubt the whole project, what was I getting myself in to? That night I had a terrible episode of migraine which continued to the morning. I called the shaman and asked if I should cancel since I still had a migraine. She laughed lightly

¹⁵ A recent project between Baaam (a non-profit organization with feminist, antiracist and humane values) and SVT (the Swedish public service television) investigates patients' experiences of the treatment of eating disorders at different hospitals in Sweden, among them the one where I was being treated. Source: https://www.svt.se/nyheter/lokalt/uppsala/sandra-22-upplevde-sig-sjukare-av-att-vara-pa-akademiska

¹⁶ Arcelus, Jon et al. "Mortality rates in patients with anorexia nervosa and other eating disorders. A meta-analysis of 36 studies." Archives of general psychiatry 68,7 (2011): 724-31. https://doi.org/10.1001/archgenpsychiatry.2011.74

and responded, 'of course you have *the* migraine, that is your body recognizing the process, it is already starting...'

Assuring me there was no harm or danger in me joining, I finally went.

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Saturday June 4th, 2016. I remember the date because it was the day after my brother graduated from high school (migraine hell day). I knew the migraine was probably more a withdrawal symptom of lack of coffee than a 'initiation process', yet, eager not to mess with the 'spirits', I persevered. Irritated and sleepy, I travelled to the concrete outskirts of the city. When I arrived at the location,¹⁷ a three-story apartment building, I was to text a number to be let in. It was all very underground. The door was already ajar when I arrived on the top floor. It was open – for me. Maria, as I will call her, welcomed me with a curious look on her face. She has both a warm and stern face. Loving and determined. I hung my things in the hallway and entered the living-room, which was the room where the ceremony would be held in. On the door to the kitchen (which was private) it said: 'Where there is a witch there is a way.' Huh, I thought, surely, I didn't believe in witchcraft starting this journey. Today, I would say otherwise. In the living-room I am greeted by four other nervous people. I'd say the ages range between approximately thirty and sixty, I am the youngest in the room. We sit and wait for one more to come before we get started.

The ceremonial work starts with a four-hour long workshop held by one of the facilitators. Throughout the workshop we touch upon themes which any psychotherapist would do, especially beneath the psychoanalytical branch, however with a somewhat contemporary modern twist; mother, father, romantic relationships, friendships, career, health, body. We are asked to write down intentions, thoughts, and feelings, perhaps if there is some disagreement or disconnection that we want to work with. In the end of the workshop, we are asked to set an intention for the ceremony. A topic to focus on. I wrote about decisionmaking and productivity, still contained within a configurative state. Like I was going to heal by becoming more decisive and productive. I also wrote about my relationship to my body, begging for it to improve, to make the disease go away. Nothing of this happened. But before jumping to the good part I will describe the preparation before the ceremony. We were each assigned place in the room, based on Maria's intuition. One mattress, one pillow and a cover were given and in our spot we could decorate with whatever objects or 'totems' that we had brought with us. The necklace I got from my father of my 13th birthday hung around my neck and in my hand, and in my hand, I held one dice I had retrieved from the board game Yatzy at home, tightly. These were things who which, if the journey got overwhelming, we could grab a hold of the totems and find our way back. Next to me I had a notebook and a bottle of water. In front of the mattress the facilitators had placed a small plastic bucket, in case we'd purge. I wore clothes which I had specifically chosen for this occasion. A pair of soft pants which I had gotten from my sister, a very soft t-shirt. I had carefully chosen clothing, which was not tight or snug, but loose and soft.

While we were all getting settled the room was prepared. Candles were lit and the music equipment was set in place. Maria lit a piece of Palo Santo, a small wooden branch with a lovely, calming scent. A scent from which I, starting with that day, recognize as healing. The room was decorated with hanging fabrics on the walls and in the roof, beautiful mandala patterns and Mayan artwork and geometric patterns in all colours.

¹⁷ Unfortunately, I can't reveal the exact location because of the plant medicines' legal status in Sweden. Through this project, my intention is to inspire movement towards a decriminalization of these 'drugs' and a destigmatization of their practices, hopefully making the experience I had safer and fairer to everyone involved.

The shelves were filled with objects and 'souvenirs': Angels, witches, buddhas, even an image of Virgin Mary and the halo. It was a noetic mixture, there was room for all sacred things.

We began the ceremony with an initiation ritual. Maria and her assistant went by each of us one by one with the Palo Santo and stroked the stick in a circular motion around our bodies, heads, and hearts, reminding me of the use of holy water in the catholic cleansings. But instead of water showering my forehead, here my lungs were filled with this thick, warm, tranquil smoke which made my whole body go into a peaceful state. At other ceremonies I have attended, this initiation ritual has sometimes been done with Tobacco instead. Then the assistant walks by you, blows the tobacco on different places of the body while you interact with the smoke: the hands, the heart, the forehead.

The next step of the ritual is the drinking. Maria fills up a small shot glass of brown, pudgy juice and hands it to me from where she stands in the front of my mattress. My mattress is my habitat for the night. In a last attempt of doubt, my hands cautiously meet her halfway from where I sit and finally take the glass. While repeating my intention I drink. It's the most disgusting thing I have ever tasted. Impossible to describe. Like a mix of soil and cold coffee grounds with bitter pieces of bark, but worse. My whole-body shivers and I must really work to keep it down. After receiving, I sit in an upright position for a few minutes while the music starts. After a while, I change to a laying position. I closed my eyes and started to focus on my breathing, as we had been encouraged to do. And so it began.

Many people have tried to describe an ayahuasca experience. There is no such thing as a generic experience. For me, each time has been completely different. However, what I've noticed lately is that, in smaller recurring groups (that is when the same group 'meets'), there are always some overlapping themes. This time though, was one of the most profound ones. There have been a few of these, maybe three throughout the years. Experiences which reconfigure my perception of existence, allowing new *life*.

I can't go through it 'chronologically' because during such a journey the notion of time is absent, however I can recall the different unfolding parts. As my body started to feel more and more nauseous, I was soaring over the jungle as an eagle, taking in the beauty of Mother Earth. Suddenly I dove down abruptly into the forest and shift-shaped into a jaguar. We hunted through the forest, my eyes were her eyes, my body was her body; beautiful, majestic, muscular, perfection of nature. The colours of the jungle became more and more intense, and the vegetation became more and more crowded. I had to push myself through the trees to come through, suddenly I start cutting the thick leaves with a machete. I shape-shifted again. The hands that hold the machete are rough. As I make my way through the deep jungle the nausea increases and suddenly there is only darkness. I disappear from the jungle and I'm back in Maria's room. I open my eyes and the roof is gone. The concrete roof that was there before has vanished and instead I can see the starry sky. Right there. It's projected as a spheric surface, an astrological vault. I recognize Karlavagnen (Charles's Wain), the star constellation where people in my family which has passed away has their place. In one of the stars in the square that builds the wagon is the star of my brother. He blinks to me.

The nausea demands me to change position. I shift to the fetal position but then I remembered something that they said during the workshop. If nauseous you shouldn't fight it. Embrace it. The body naturally goes into a curled up position but instead of giving in to this you should stretch your body. I lay on my back and straighten the body. Now the nausea is so intense so that I want to give up. I can't do this, it's too hard. I try to close my eyes to rest and as soon as I relax, it begins. It all happens so fast. In a split moment my body hurls up rapidly to a sitting position while I reach for the bucket and purge. It's like a force that I have no control over but somehow, I know exactly how to handle it. It ceases me two-three more times, and

in the dizziness, I think for myself 'help'. Before knowing it Maria sits on the other side of the bucket. I look at her and her hair has become hundreds of tiny snakes. I don't remember being scared of them, even though I can't stand snakes in the real world, they seemed kind. 'I don't know if I can do this, I squeaked, tiredly.' She held my hair and shoulders as I continued until my body was completely empty. There was nothing left. When I looked down in the bucket there was a hop of snakes. At this moment I knew it was over. Maria was already back at her spot in the corner of the room. Exhausted I laid down and pulled the cover up to my chin. From here, the main act began.

I'm traveling through a hospital corridor. I hear no footsteps. I must be some sort of immaterial entity. At one door I suddenly stop and enter. Everything is white. I'm blinded by the high exposure. Suddenly a bed appears along one of the walls. Someone is laying in it. I can only see the contours, so I decide to move closer. At first, I don't recognize her. Her pale skin of her shoulders and neck is exposed the white blanket only covers to her chest. She must be very sick. When I come closer to see the face, I recognize who it is. It's me.

A cold shudder overwhelms me. What am I doing here? Why am I laying there? Why am I so pale? I quickly feel an awe of shame. I hope nobody sees me like this, all naked, without any makeup or fixed hair. I turn in the room and is shocked by all the people who has gathered around the hospital bed. I try to make eye contact, but it seems as like they can't see me. Everyone is there: my mother and father, my stepparents, my siblings, my partner, even two friends I recently started hanging out with. The shame is quickly replaced by warmth. How nice that they're all here for me. then I see they are all crying. The warmth is replaced by confusion, of fear. Slowly, the entity that I am starts to move away from the front of the bed, towards my mother. Without notice I enter her body and all of a sudden, I can see myself through her eyes. What's even more profound is that I can feel what she feels. This I won't be able to describe. I feel deep, deep pain and suffering. She mourns me. I start sobbing quietly where I am laying on my mattress. I hold the dice a bit firmer. It's too much to go through. I feel all her love and sorrow. The anger. The defeat. The confusion. Everything that she misses, everything that she will never get to say. All that is lost. And that's when I realize.

I am dead.

This insight makes me cry harder. I don't want to die, not yet. I decided to live, remember? From here the experience intensifies. Abruptly I stop being my mother and moves on to my father. This is even more painful. Or rather a completely different pain. My father, who I love dearly, my knight in shining armour, the person I look like the most, our entangled brains and personalities. I am truly his daughter. I stay with him until I have to move on to the next one. I almost can't talk about the pain I experienced when I entered my sister. It's too near. A void that I realized in that moment would never heal. I'm sobbing loudly and uncontrollably. I continue shape shifting until I've visited everyone in the room. Drained I pray for an end to this. It's so intense. Then I hear an echo, a voice that speaks to me. 'You wanted to know what would happen if you died, you thought nobody would notice.' When I was sick, I used to tell myself, nobody would notice if I died. Nobody would even care if I didn't exist. And here it was, played out before me. I felt love for the first time in a very long time. I felt worthy of love. It was so overwhelming, and tears was still running down my cheeks. It was so much emotion. In the fog of tears the assistant comes up to me and says, 'it's really beautiful that you were able to mourn, Ragna, but remember what we said about responsibility, now you will have to hold yourself.' Two cosmic arms, descended from the starry sky and held me. Suddenly I was an infant, wrapped up in a blanket. I was holding myself. Everything was going to be okay. I was not dead. Exhausted, I spent the rest of the ceremony in pure bliss, enjoying the realization that I was alive. My whole being was dissolved in a state of what can be best described as Love. Infinite and unconditional. Nothing to

receive, nothing to give. A simply euphoric immanence. I listened to the beautiful tones of the music which constructed a spatial and temporal meaning. 'Gracias a la vida', Mercedes Sosa sang.

Gracias a la vida que me ha dado tanto Me dio el corazón que agita su marco Cuando miro el fruto del cerebro humano Cuando miro el bueno tan lejos del malo Cuando miro el fondo de tus ojos claros

The next day we had breakfast together. After breakfast we gathered in the living-room for the final step of the ceremony. The 'sharing' was a means for us to share our experiences but also to get some 'feedback' from Maria, a means of mediating between the experience and the fact that we now had to return to our lives and start the integration process. How could we learn from the experience so that it could be productive for our lives on the outside? The sharing was also a collective ritual, a way of giving space to each other and allowing each one to be heard. The obligation to observe silence is strictly followed and one cannot share to someone else's experience outside the group. Sharing can be tricky, and most of the times it's hard to describe the experience. Usually, one can recall themes or insights, but sometimes the ceremony can open up a process, leaving the 'patient' in a confused state. If this is the case the facilitator is there as a support. I was happy I had a stand-in therapy session with Maria a few times a month. During these sessions we could talk about the changes that were taking place and how I could, in a productive way, steer my actions towards healing. Because, as they emphasized over and over again, the profoundness of the medicine is not what takes place during the ceremony, the subtle changes, that will in fact potentially better an experience of life, takes place in between ceremonies. Ceremonies and plant medicines only open up to the possibility of change. Like poetry opens up the structures of language. Following this new seeing, new perception, is the necessary act of change in itself.

Leaving the building I felt lighter, more alive and calmer than I'd ever felt before. For the first time in my aware adult life, I had felt the transforming stroke of love. My heart was wide-open, both towards people around me and myself. The self-loathing was replaced with a deep compassion and empathy. But I was still shaken. My ontological understanding of the world was completely deflected and the idea of knowledge that I had carried with me for so long had profoundly shifted. What is this knowledge? I knew somewhere that this experience was induced by the medicine, and that the scenes from the hospital could be described as a sort of dreaming, however I was conscious in the dream. It was manifested as a true experience in my body. I was there. I felt it.

And that was my first real noetic experience.

Since then, I have been incredibly curious to understand *how* this experience was able to heal me from a disease that had held me in such a firm, lethal grip. And more importantly, *how* I could go about to make this rather 'underground' practice, available to other people, what can I do in order to help other who suffers to heal?

My first encounter with the practices of plant medicines started with this experience, and to this day, it is the only experience, that has effectively helped me in my journey to recover from eating disorder and my path to an experience of life which is joyful, vital and (almost) free from depression. In many ways, I owe my life to these practices and naturally my interest to learn more about them has only grown since I started this journey.

So, that is what I will attempt to pursue in this project. I am the architect, and I am at the same time the patient. By healing myself I hope to inspire healing in others, and my conviction is that this can be accomplished through new means of thinking about structures, spaces, relations, and experiences.

METHODOLOGY

Exploring the Noetic

This thesis follows my personal narrative of healing presented in the previous pages, *The Architect and the Patient*; from being stuck in, what was for me, a western pathological configuration; to the liberation of ontological and epistemological perspectives that through the noetic experience in shamanistic therapeutics lead to transformative healing. Noetic which have the potential to change rigid psycho-geographical structures and my intention with this research is to see how these perspectives can be instrumentalized to shift and rethink rigid methodological structures in architecture. What my experience embodies is the notion of Karen Barad's dynamic methodological instrument of *Agential Realism* which intends to dissolve ontological, epistemological and ethical boundaries by emphasizing the irreducible entanglement between matter and meaning:

Practices of knowing and being are not isolable; they are mutually implicated. We don't obtain knowledge by standing outside the world; we know because we are of the world. We are part of the world in its differential becoming.¹⁸

As the expression of material arrangements, architecture manifests such agency in the production of reality and meaning. Barad opposes the modern belief that material arrangements are 'static' *in* the world, and rather they become dynamic reconfigurations *of* the world.¹⁹ For me it was the disembodied mind finding its way back to its sentient body, depicting such a transformative material arrangement of new meanings.

If architecture is so deeply entangled with the discourse of body, how can such a transformation take place in the 'body' of architecture as the expression of new socio-political, and economic realities? Following

¹⁸ Karen Barad, *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning*, (London: Duke University Press, 2007), 185.

¹⁹ Barad, *Meeting the Universe Halfwa*y, 335.

my personal experience, the presence of liminal processes was crucial to the possibility of transformation, and the noetic experience enabled this transformation. Therefore, this research sets out to explore different perspectives on the noetic, from the material western practices to the immaterial situated practices found in shamanistic knowledge context, through approaching three potential roles of the architect: *The Architect the Surgeon, The Architect the Shaman* and *The Architect the Noet*.

In chapter one, *The Architect the Surgeon*, I will trace the etiology of mental illness focusing on the imaginable roots of an eating disorder reflected upon in chapter one. Through the reading of literary references in architectural theory, philosophy, and medicine, I will dissect historical structures, paths, 'causes' and configurations which may have led to this pathological 'adaptation' within the semiotic system of modernity but also how these practices relate to the noetic realm. Reflecting on and interrelating spatial, epistemological, technological, and clinical conditions, I will elaborate on the question: *how does the suffering body arrange itself within the conditions of modernity*?

In chapter two, *The Architect the Shaman*, shamanistic practices and cosmologies will be studied as an expansion and deepening of my own experience of the noetic. Deleuze's *therapeutics*, the development and application of treatment, is here to cast a reflection in investigating how therapy exists in the shamanistic world. I will trace several traditions to their origins and contexts, through the reading of literary references in anthropology and cosmology together with semi-structured interviews held with people in close connection to these knowledge-contexts I will explore healing through the lenses of ritual, ceremony, spirituality and temporality as well as ideas of ecology and collectivity.

In chapter three, *The Architect and Noet*, I introduce and expand on the philosophicalphenomenological notion of noesis from a western knowledge context, as a tool mediating between the material configurations of modernity and the non-western shamanistic practices in chapter two. Literary references from phenomenology, philosophy and architectural theory builds the chapter. As an instrument of perception, the noetic has the potential to open up rigid thinking and cognitive prejudice, offering fresh ways of 'seeing' the world. Central to this chapter is the symptomatological method derived from Deleuze's *Clinique et Critique*, a method which is reflected in noetic thinking. Noetic 'reasoning' should be imagined as a reflexive choreography moving between the existential, the spiritual and the 'conditioned.' When applied spiritually, noetic perception has the potential to cognize our inner structures, the hidden dimensions that constitute human consciousness, something which I've found is reflected in the shamanistic world.

By spanning from the rigid configurations of modern medicine to the ecological practices of shamanistic healing this project intends to map and explore cartographies of noetic healing, making visible worlds and perspectives rejected by the modern West. While researching the topics of body, space, perception and cognition, each chapter is discussed in relation to each other, where noetic overlaps occur and disappear, while also exploring the roles of the architect from different perspectives and disciplines, looking at what architecture and the architect – have the potential to become.

CHAPTER 1

The Architect and the Surgeon

Just as the architect is the patient, the architect is also the surgeon. This is the central idea to Gilles Deleuze's ideas of '*Critique et Clinique*'. While *etiology* (the search for causes) and *therapeutics* (the application of a treatment) are integral parts of medicine, *symptomatology* (the study of signs) concerns what he calls the 'premedical boundary.' Symptomatology, Deleuze suggests, belongs 'as much to art as to medicine',²⁰ and perhaps even more to art and architecture due to our possibility of experimentation, means which surgeons or clinicians are corporeally limited to. There is often a great discrepancy between the modes of existence in mental illness and the symptomatology of such a condition, where the nature of a condition is different than the symptoms. The main idea behind Deleuze's project is that authors and architects, like surgeons and clinicians, can be seen as major 'symptomatologists', with the potential to change such boundaries towards the establishment of health. Health is not to be limited to an absence of disease but as the nexus of aliveness; that is joy, happiness and engagement, the forming of a vital existence. Drawing on this idea that architects are clinicians, this research set out to organize symptoms, signs, and expressions of mental illness but rather than isolate it seeks to reconnect symptoms with experience, dissolving and re-defining the pre-medical boundaries through mediation and innovation.

In the following pages I elaborate on the question: how does a diseased body arranges itself withing the conditions of modernity? Departing from the profound division between body and mind put forward by the Renaissance thinker Rene Descartes, the chapter will trace the genealogy of his influential thinking reflected in the evolution of medical knowledge, technology, and media, rendering the human being fragmented. Dissection and separation, classification and analysis, consolidation, and healing, are themes which, are inherent to both the Surgeon and the Architect, mediating the notion of Deleuze's *Clinical and Critical*.

Perception

The modern conception of the body-mind problem as formulated by Rene Descartes, postulated that there are two kinds of substance: body/matter and mind/spirit. 'Matter, of which the essential property is that it is spatially extended; and mind, of which the essential property is that it thinks.'²¹ Descartes' theories regarded the mind superior to the body, not needing the body to exist. With the mind superior, his discourse shifted the approach of perception, because for Descartes, to see was to perceive.²² Vision was considered the highest form of perception and the act of observation became the fundamentals of the empirical method. Furthermore, the principal method for reasoning, produced by the rational superior mind, was the

²⁰ Gilles Deleuze, *Essays Critical and Critical*, trans Daniel W. Smith and Michael A. Greco, (London: Verso, 1998), 16.
²¹ Howard Robinson, "Dualism", *The Stanford Encyclopedia of Philosophy (Fall 2020 Edition*), ed Edward N. Zalta, https://plato.stanford.edu/archives/fall2020/entries/dualism.

²² Michel Foucault, *The Birth of the Clinic: An Archaeology of Medical Perception*, trans A.M. Sheridan, (London: Tavistock Publications Limited, 1973), 8.

mathematical thinking. The unifying language of mathematics was to structure the world – a world which belonged to the human mind. The idea of a disembodied mind also shaped the trajectory of which Western medicine approaches the study and treatment of diseases.²³

Succeeding Descartes, tools and theories in medicine have, over the last two hundred years, lead to the establishment of the body as a 'site for the production of new images' and 'new fields of meaning', what Katharina D. Martin calls 'corporeal space'. This space is defined by a medical perception or 'gaze', which in turn responds to changing systems of knowledge.²⁴ In her paper *Ecologies of Corporeal Space* she maps the 'coeval progression' of technical developments, medical practices, and the production of knowledge, revealing the perpetuating process of separation of the body and mind (through perception) proliferating with this medical 'gaze.'

Classification

In classical medicine, *nosology*, in which the patient was being examined through observation and the categorization and description of symptoms, was the prevailing practice. With the introduction of the mathematical table or the 'tableau', the medical gaze became a means to 'observe pathological abnormities, after which they would be arranged, structured and put into a specific "order" with the help of language.²⁵ The table as such, functioned as a membrane between the observed and the spoken, and as the consolidation of medical perception and language, the table produced a new medical system of knowledge.²⁶ Michel Foucault illustrates the problem of classification through depicting the table as a 'technology' of order within the scientific, economic and political realm. The arranging of botanical plants in the scientific table at first seemed harmless, but what it brought with it was the rational classification of living beings; the economic table offered observation, supervision, and regulation of the dispersion of commodities and money, which led to the rise of a common principle on how to increase wealth; the political table allowed for the observation and inspection of the people through registration and calculation of armed forces. For Foucault, the table is both a 'technique of power and a procedure of knowledge.²⁷⁷

Dissection

In the eighteenth century, anatomical dissections of bodies became a common means of collecting medical knowledge. The founder of anatomical medicine was Andreas Vesalius, who through the 'elegance' of its classification and organization of his seminal work *Fabrica (The Fabric of the Human Body)* (1543), gave anatomy a new aesthetic language.²⁸ Vesalius became professor in medicine at the University of Padua in 1522 where he initiated the construction of the first anatomical theatre. Predominantly run by universities, the anatomical theatre became the central medical institution and 'knowledge-space' in the early modern period.²⁹ The dissected, fragmented body was a central reference in architecture and inspired both practice

²³ Antonio R. Damasio, *Descartes' Error: Emotion, Reason, and the Human Brain,* (New York: Avon Books, 1995), 248-250.

²⁴ Katharina D. Martin, "Ecologies of Corporeal Space," in *Critical and Clinical Cartographies International Conference Proceedings*, ed Andrej Radman and Stavros Kousoulas, (Delft: Architecture Theory Chair in partnership with Jap Sam Books, 2015), 39.

 ²⁵ Martin, "Ecologies of Corporeal Space," 40.
 ²⁶ Ibid.

²⁷ Michel Foucault, *Discipline and Punish: The Birth of the Prison*, (New York: Allen Lane, 1977), 148.

²⁸ "Andreas Vesalius," Britannica, last modified Nov 27th, 2021, <u>https://www.britannica.com/biography/Andreas-Vesalius</u>.

²⁹ Marion Mücke and Thomas Schnalke, "Anatomical theatre" in *European History Online (EGO)*, the Leibniz Institute of European History (IEG), last modified February 19th, 2021, <u>http://www.ieg-ego.eu/mueckem-schnalket-2018-en</u>.

and theory, architects tried to understand the interior of buildings by cutting through them.³⁰ In addition, 'to disseminate medical knowledge' the anatomical dissections were 'to provide proof of divine creation, to highlight the temporary nature of human life, and to promote the self-knowledge of the spectator.'³¹ The dead body on the table served as a productive object, a primary source of medical knowledge and future diagnostics, while the living body of the spectator served as the subject – entertained and enlightened. Through the spatial exploration of the dead body, the 'corporeal space' expanded such that it would include the living body as well. As Martin states, 'the simple gaze of the doctor expanded into a comprehensive anatomical clinical-apparatus.' A mechanic perception in which tools and instruments could inform a 'novel mapping of the body'.³²

In *The Performative Corpse* (2014) the philosopher Kristin Keating studies the relations between the anatomical body and the anatomical theatre: 'when the dissected body is placed in a privileged position on a theatrical stage, it becomes a performative corpse.'³³ Despite *one* of the aims of the anatomical discourse in confronting mortality, the presence of an elevated stage rather transformed such a confronting to a *'constructing'* of mortality.³⁴ It became a means of fictionalizing and dramatizing the event of death in order to avoid its incomprehensibility. As humanistic society slowly replaced theistic society a spiritual crisis emerged, a crisis in which the anatomical theatre played a critical role in conceptualizing. Keating suggests the Cartesian knowledge strongly pertains the medico-scientific discourse, particularly to the dissection of the dead body: the anatomical body emerging in the early modern period in fact, rendered to be an essential element to the development of Descartes dualism and how 'mapping of the body's interior,' lead to a demystification of the machine, which in turn promoted the 'emergence of the operative ghost.'³⁵

In the corporal space of the anatomical body, an illness was no longer a two-dimensional virtual representation, but could be considered embedded and locatable. Surgical interventions emerged as the urge to act within the body, to get rid of the material disease residing in the anatomical atlas.³⁶ In the discipline of mental health, this led to the procedure of lobotomy, a surgical intervention where parts of the brain cortex, which were thought to inhabit the diseases, where removed.³⁷ The dehumanizing and invasive surgery which left many patients 'apathic' and with 'a general decreased depth in emotional response', was abolished largely by the 1960s. However, some techniques of psychosurgery – which has no 'virtual' effect on intellectual function, is still performed today on patients with severe psychosis or OCD.³⁸ In the middle of the nineteenth century, the discovery of anaesthesia – the induced state of *unconsciousness* – enabled more complicated surgeries. The living body, like the anatomical corpse, was now rendered a physical object, 'the living body was silenced'.³⁹

Medium

³⁰ Colomina, *X-Ray Architecture*, 15.

³¹ Mücke and Schnalke, "Anatomical theatre."

³² Martin, "Ecologies of Corporeal Space," 40.

³³ Kristin Keating, *The Performative Corpse: Anatomy Theatres from the Medieval Era to the Virtual Age*, (Irvine: UC Irvine, 2014) ProQuest, retrieved from https://escholarship.org/uc/item/9th868k6, 8.

³⁴ Keating, *The Performative Corpse*, 13.

³⁵ Keating, *The Performative Corpse*, 11.

³⁶ Martin, "Ecologies of Corporeal Space," 40.

³⁷ "Lobotomy," Britannica, last modified February 12th, 2021, <u>https://www.britannica.com/science/lobotomy</u>.

³⁸ "Psychosurgery," Britannica, last modified June 14th, 2021, <u>https://www.britannica.com/science/psychosurgery</u>.

³⁹ Martin, "Ecologies of Corporeal Space," 40.

Accentuating the medical perception was the discovery of the X-ray in 1895. For the first time, the interiors of a living body could be observed without invasive techniques. Enabled by the medium of photography, this novel image of the body could even be observed without the presence of the physical body, hence the medium of the X-ray produced yet a new corporeal space,⁴⁰ further increasing the distance between the body and the mind. The depicting of a 'true' image of the body rendered the subjective experience of the patient inaccurate or even delusive. Reducing the patient to a set of symptoms or a biochemical composition is still common today and is deeply problematic as it leaves little agency for the patient to handle their own pathology.⁴¹ As medical representations changed, so did architectural representations.⁴² The desire for visibility had a great impact in the modern movement: 'architects wanted you to see inside their buildings, revealing the interiors and bone structure.'⁴³

One of the main struggles in neuroscience and psychology today is the 'hard-problem' of 'locating' consciousness. Despite technological advancements, like the incredibly precise brain-imaging fMRI which enables an illustration of correlates between symptoms and certain areas of the brain, scientists can't agree on one consensual theory of consciousness.⁴⁴ 'Each measuring machine produces its own characteristic image, functioning as a membrane between the internal corporeal space and its cognitive and digital correlation', Martin concludes. A membrane further increasing the experience *in* the body with the perception *of* the body.

Conclusion

In this chapter the intention is to present several coevolving themes concerning body, space, media and knowledge. There is a discrepancy between scientific descriptions of the world and the lived experience in the world. The dissectional practices emerging with the anatomical method is both a way of permeating corporeal limits in order to explore what's behind, but it's also a practice of healing, of repairing and creating something new. However, because of these practices, the material body was separated from the thinking mind, and what followed was an objectification and a demystification of the body. The discrepancy between body and mind proliferated through the evolving perceptions of media taking place during modernization. If modernity is the progressive alienation from experience and consciousness, knowledge systems found in many non-western contexts don't have such discrepancy. Systems which are found in contexts not fully westernized or modernized. Included are domains which have been pejorated by modern medicine and considers practices such as shamanism and herbal medicine. Such practices are fostered and developed through situated knowledges, revealing the notion of *noesis*, where knowledge is considered embodied and experienced rather than intellectual.

⁴⁰ Martin, "Ecologies of Corporeal Space," 41.

⁴¹ Ibid.

⁴² Colomina, X-Ray Architecture, 16.

⁴³ Drew Zeiba, "Architecture and illness: Beatriz Colomina on tuberculosis, modernism and Covid-19," *PIN–UP 28*, Spring Summer 2020, <u>https://pinupmagazine.org/articles/interview-beatriz-colomina-x-ray-architecture-drew-zeiba</u>.

⁴⁴ Robert Van Gulick, "Consciousness," *The Stanford Encyclopedia of Philosophy (Winter 2021 Edition)*, ed Edward N. Zalta, https://plato.stanford.edu/archives/win2021/entries/consciousness.

CHAPTER 2 The Architect the Shaman

Reflected in shamanistic practices and cosmologies, the noetic perception appears through the use of alternative *therapeutics* as a means to reveal and dissolve structures of consciousness, to permeate the structures between the material and the immaterial experience. As an expansion of my encounters with shamanistic healing practices, I will trace the noetic traditions to their origins and context, exploring themes of ritual, ceremony and temporality and the ideas of ecological and collective healing. The Architect, like the Shaman, can be seen as mediators and healers, practicing in between different worlds and disciplines.

Noetic Healing

My experience of noetic healing was not anecdotal. The healing potential of the substances which I encountered through ceremonial work; Psilocybin and Ayahuasca, are both being researched for multiple

mental and neurological disorders such as PTSD, depression, addiction and eating disorders.^{45,46,47} Matthew Johnson, psychiatrist and researcher at Johns Hopkins university, regards psychedelics like psilocybin and ayahuasca as 'slapping people out of their story' with the potential to 'reboot' the mental system. His research suggests that 'psychedelics open a window of mental flexibility in which people can let go of the mental models we use to organize reality.'⁴⁸ Michael Pollan, author of *This is Your Mind on Plants* (2021) describes his take on the psychedelic experience, which seem to have noetic undertones:

Human consciousness is always at risk of getting stuck, sending the mind around and around in loops of rumination: plant and fungi chemicals like psilocybin can nudge us out of those patterns, loosening stuck brains and making possible fresh patterns of thought. Psychedelics can also benefit us and our culture, by stimulating the imagination and nourishing creativity in the individuals who take them. It's useful to think of these psychoactive molecules as mutagens, but mutagens operating in the realm of human culture rather than in biology.'⁴⁹

Rigid habitual structures, such as those I myself had developed, but also those who give rise to substance addiction, or the negative loops of depression, become more manageable. Psychedelics, by softening the classifications and structures that organize our human experience, opens up new cognitive possibilities.⁵⁰ Another important aspect in the therapeutical use of psychedelics, which differs from traditional Western medicine, is the role of experience.⁵¹ The interest from the mental-health community is immense since the research has been more or less still since the invention of the SSRIs in the beginning of the 1980s. ⁵²Yet, the research of psychedelics is moving slowly due to the many legal constrains of these 'drugs.' This is directly related to the reforms and legislations of the *War on Drugs* emerging in the United States in the 70s where substances such as the ones stated above were banned. Legislations which the rest of the West followed. The effectiveness of the War on Drugs has been deeply criticised and questioned because of the racial disparity of the punishments since approximately eighty percent of the incarcerated in the early 21st century was African American.⁵³ Some consider the legislations as targeting specifically groups and communities, which were 'troubling' for the government and a 'treat to social norms and institutions,' like Latinos, African-American and hippies.⁵⁴

Because of my personal relationship to these medicines and the global interest that has emerged within the scientific community in the last decade, it is of relevance and deep importance to Medicine and to Architecture – as forming and fostering spaces of *and* for healing – to look at the contexts where these

glutamate," *Experimental and clinical psychopharmacology* 23, no 1 (2015): 1-21, doi:10.1037/a0038550. ⁵³ "War on Drugs," Britannica, last modified Jul 23rd, 2020, <u>https://www.britannica.com/topic/war-on-drugs</u>.

 ⁴⁵ Fernanda Palhano-Fontes, et al., "Rapid Antidepressant Effects of the Psychedelic Ayahuasca in Treatment-Resistant Depression: a Randomized Placebo-Controlled Trial," Psychological Medicine 49, no. 4 (2019): 655–63, doi:10.1017/S0033291718001356.
 ⁴⁶ Alan K. Davis, et al., *"Effects of Psilocybin-Assisted Therapy on Major Depressive Disorder: A Randomized Clinical Trial," JAMA*

Psychiatry 78, no. 5 (November 2021): 481-489, doi:10.1001/jamapsychiatry.2020.3285.

⁴⁷ Marika Renelli, et al., "An exploratory study of experiences with conventional eating disorder treatment and ceremonial ayahuasca for the healing of eating disorders," *Eat Weight Disord* 25, no. 2 (April 2020):437-444. doi: 10.1007/s40519-018-0619-6.

⁴⁸ Matthew Johnson, *Psilocybin Treatment of Depression and Tobacco Addiction*, John Hopkins Medicine Department of Psychiatry and Behavioural Sciences, August 2019, <u>https://mdpsych.org/wp-content/uploads/2019/08/Psilocybin-Treatment-of-Depression.pdf</u> ⁴⁹

⁵⁰ Merlin Sheldrake, *Entangled Life: How Fungi Make Our Worlds, Change Our Minds & Shape Our Futures*, (New York: Random House, 2020), 124.

 ⁵¹ Mauricio Diament, Bruno Ramos Gomes, and Luis Fernando Tófoli, 'Ayahuasca and Psychotherapy: Beyond Integration' in Ayahuasca Healing and Science, Springer Nature Switzerland, 2021, 66. URL: <u>https://doi.org/10.1007/978-3-030-55688-4_4</u>.
 ⁵² Todd M. Hillhouse and Joseph H. Porter, "A brief history of the development of antidepressant drugs: from monoamines to

⁵⁴ Pollan, *This is Your Mind on Plants*, 2.

medicines and practices have been regarded as innate part of society for many hundreds, and in some cases thousands, of years. In many indigenous communities the ceremonial use of psychedelics 'reinforces' social structures and help heal not just individual but collective trauma, rendering the communal aspect of healing crucial. Pollan urges the interested to look at the histories and practices of such contexts very carefully as the West moves towards reducing the complexities of ritual, knowledge and plant medicines into an industrialized drug.⁵⁵ This to prevent further exploitation and colonization; to counteract the ongoing extinction of native cultures, knowledges, languages and histories. Such extinction is sadly increasing today as modernization force large areas of native lands, such as the Amazonian rainforests, to the verge of extinction of both species and cultures, for commercial purposes.⁵⁶

Following my personal experience, I will trace the plants that inhabit the molecules of Psilocybin and Ayahuasca (N-Dimethyltryptamine) in order to study the contexts where these are used and have been used ceremonially. This decision responds to other non-human turns in recent philosophy, which urges to think beyond human subjectivity and begins to look at marginalised and denigrated systems of thought such as feminist, queer- and critical theory. On this note, we should also begin to attend the vegetal world. In order to productively engage with them and to recover our relationship to them, we should try and think of them on their own terms in ontological, biological and ethical terms. The combination of medicinal plants and shamanism has been used in almost *all* native traditions in all corners of the world, even my own, even though in the Sámi tradition there is little evidence of the use of mind-altering plants.⁵⁷ And what my experience and scientific research tell is that this specific attribute – a change of consciousness – is a central component in the process of healing. The objects of study will be focused on the Mazatec tradition in Southern Mexico and the Huni Kuin tradition in Brazil and Peru, where a large body of historical and contemporary evidence suggests the use of certain medicinal plants to change consciousness. The selection is chosen from the aspects mentioned above, but also because of their commonalities where situated knowledges, vegetal pharmacology and shamanism construct similar cosmovisions. On this note, references from other traditions reflecting such commonalities will also be included.

Psilocybin

The spiritual use of mushrooms containing the psychoactive compound psilocybin⁵⁸ was popularly discovered by the modern West with the *Life* magazine piece of R. Gordon Wasson's encounter with the Mexican *curandera* María Sabina in the late 50s.⁵⁹ However, the use of mushrooms for healing practices has existed in Oaxaca, Mexico and in Mesoamerica at large long before this moment in history. During the Spanish inquisition and conquest, many of indigenous spiritual practices were persecuted and abolished. The rituals

⁵⁵ Ibid, 11.

⁵⁶ Anette Eklund, *From Sweden to Mexico, indigenous people explain why their languages are disappearing, language extinction is connected to loss of land,* March 2020. https://globalvoices.org/2020/03/05/from-sweden-to-mexico-indigenous-people-explain-why-their-languages-are-disappearing/

⁵⁷ Research of the Sámi cultures: the native peoples of Sweden, Finland, Norway and Russia, can be linked to an ancient cosmology and shamanistic tradition. Francis Joy, *Sámi Shamanism, Cosmology and as Systems of Embedded Knowledge*, University of Lapland Faculty of Art and Design, (Tureneki: Hansaprint Oy, 2018).

⁵⁸ The most common species of psychoactive mushrooms is the *Psilocybe* family, in Mexico the common ones are the *Psilocybe mexicana, Psilocybe hispanica*. In most parts of Sweden, the *Psilocybe semilanceata*, grows freely.

⁵⁹ Wasson wrote of his expeditions to Oaxaca, Mexico, seeking the sacred rites and mushrooms of the Mazatec people, and learning from a curandera he initially protected with pseudonym. Yet, in the publishing of the article he betrayed his promise of anonymity and revealed Maria Sabina's identity, leading to abuse and alienation in her community in which she was seen as a traitor for revealing the sacred rituals of the Mazatecs which had been hidden from the West for centuries. See R. Gordon Wasson, *Seeking the magic mushroom*, in Life Magazine, 1957.

which survived firstly show strong cultural resilience and is, for the Mazatecs, deeply important and sacred. For many, the rituals are seen as 'the last healing resource.'⁶⁰ For my interview subject, Mario, founder of the organization *Con Ciencia Indígena⁶¹* his story of the encounter with the sacred mushrooms or *Ndi Xitho* ('the little ones') as they are named in the Mazatec language, draws certain parallels to the Wasson story. As Mario and his friends arrived to the Mazatec Sierra, they were approached by an old woman. Máma Linda (translates to beautiful mother) invited them into their home; a small 4x4m one room house with simple wooden walls and a thatched roof, with only a wooden bed and a wooden table in the centre. She invited them to do a ceremony together. After the trip Mario was even more encouraged to learn the indigenous traditions, or as he calls them 'procedures.' He stayed in the Sierra to study them and live with them for many years, and to this day he is devoted to spread the word of the indigenous knowledge to not just Westerners who are interested but to innate Mexicans who have 'lost their ways through modernization.'

As a growing number of studies reports, mushrooms containing psilocybin have an incredible ability to cure human illnesses. 'In one sense, this is news,' writes biologist Merlin Sheldrake, the author to *Entangled Life: How Fungi Make Our Worlds, Change Our Minds & Shape Our Futures* (2020), in another sense, much of the research that has taken place in modern scientific contexts broadly confirms what is well known to the traditional cultures who have used psychoactive plants and fungi as medicines and psycho-spiritual tools for unknowably long time. From this point of view, modern science is simply catching up.'⁶²

Ayahuasca

The history of ayahuasca differs from the psilocybin containing fungi in the way they have interacted and continue to interact with the Western world. The interest of ayahuasca in the West emerged in the 1980s and until today it is seen spreading in a different pattern, seemingly preserving much of its original intentions, commons, and rituals.⁶³ Ayahuasca has been used in a wide range of indigenous and traditional contexts all over South America. The ayahuasca brew is made from the vine *Banisteriopsis caapi* and the bitter leaves of the *Psychotria viridis*. In these contexts, it is used for a variety of purposes, such as healing, hunting, divination, celebrations, and rites of passages.⁶⁴ For Simon, spokesman of the organization *Living Gaia*, the use of ayahuasca today in many indigenous contexts is used to heal collective trauma from colonialism as well as to create a sense of community, to 'fortify the cultural identity.'⁶⁵ During recent years, what Simon believes can be explained by the fact that ayahuasca is reaching a global interest through medicine, the use of ayahuasca

⁶⁰ Konstantin Gerber, Inti García Flores, Angela Christina Ruiz, Ismail Ali, Natalie Lyla Ginsberg, and Eduardo E. Schenberg, *Ethical Concerns about Psilocybin Intellectual Property*, ACS Pharmacology & Translational Science 2021 4 (2), 573-577.

⁶¹ The Spanish name: 'With Indigenous Science' also reads 'With Indigenous Consciousness.' Their mission stated on their website reads: 'Mario Gómez and Rocio Lopez, creators, and coordinators of Con Ciencia Indígena formed over three decades, initially sharing with close people, then friends of friends, who brought their friends, that told other people, a chain that never stopped.' https://www.concienciaindigena.org/

⁶² Merlin Sheldrake, *Entangled Life: How Fungi Make Our Worlds, Change Our Minds & Shape Our Futures*, (London: Random House, 2020), 119.

⁶³ Mauricio Diament, Bruno Ramos Gomes, and Luis Fernando Tófoli, "Ayahuasca and Psychotherapy: Beyond Integration" in Ayahuasca Healing and Science, ed. Labate B.C., Cavnar C, (Springer Nature Switzerland 2021): 64, <u>https://doi.org/10.1007/978-3-030-55688-4_4</u>.

⁶⁴ Diament, Gomes, Tófoli, "Ayahuasca and Psychotherapy: Beyond Integration," 63.

⁶⁵ The non-profit organization *Living Gaia* aims to exchange knowledge and culture between Germany and the sites where the lineage Huni Kuin resides today in the rural parts of the Amazon in Brazil. Annually they gather for workshops and collective ayahuasca ceremonies in Brazil but also invites the Huni Kuin to travel to Germany to share their knowledge and rituals. Since 2018 they have also started a collecting donation for a land-purchase project to expand the current territory of the Huni Kuin to prevent their land from decreasing due to the deforestation of palm oil and other commercial products. Zoom interview with Simon Knoop, *Living Gaia*, by Ragna Nordström, on December 3rd, 2021.

is spreading locally to places in South America which preciously didn't 'drink'. The lineage of the indigenous group Huni Kuin, which the organization cooperates with, is one of the oldest known communities which have drunk ayahuasca ceremonially. Pluralism exists within the many indigenous practices and places and some rituals are more connected to spiritual entities, witchcraft, and religious connotations than others. What seems to be a common denominator, however, is the understanding that ayahuasca is a teacher, a living entity that communicates with the participants.⁶⁶ In times of uncertainty, many indigenous groups, like the Amazonian lineage Asháninka, do what they've done for many generations; they consult the plants in ceremony, seeking spiritual guidance and wisdom. The anthropologists and authors of *When Plants Dream* (2019) describe the process of collecting and preparing the brew in the Asháninka tradition:

'In the morning, at dawn, they stroll into the jungle until they find a twisted wine, a woody liana, twirling in spirals up into the rainforest canopy, the *Banisteriorpsis caapi*. They shake the vine that grows in double helices. A piece falls down and they cut it off. This is the part of the vine – they say – that offers itself to be taken. Together with the glossy leaves of *Psychotria viridis*, a bush of the Rubiacaie, a coffee family, they prepare the ingredients to make what they call kamarámpi – also known as ayahuasca – layering the leaves upon pulverized vines in a metal pot. For hours the brew is cooked over an attended fire until boiled down to a brown liquid by sundown.⁶⁷

Due to the local preparation of the brew, ayahuasca has been difficult to study in a traditional scientific research setting. The challenges for science in 'extracting' the substances without going through the local processes of collecting the plants in the jungle and engaging in the ceremonial manner of preparing the brew (sometimes for hours or days), are many as it demands local knowledge which often have been learned through generations. The ceremonial aspect, has also been seen as an important feature because of how it may inform 'key elements of psychedelic-assisted therapy' as well as it explores 'approaches to healing that lie outside the Western scientific tradition' which today is important as it calls to 'revise Western epistemological biases that circumscribe scientific understanding'.⁶⁸

Indigenous Cosmologies

To come closer in understanding the way the indigenous view medicine and healing, it's necessary to study their cosmologies. Many of the indigenous cultures around the world view themselves as part of a natural process, they don't fear death because they understand this cycle of life as something very natural. They feel a belonging to nature and not separated from it; for them there is no distinction between nature and culture, it's all nature and it's all culture.⁶⁹ In the cosmologies of Mexico and the Amazon, the spiritual paradigm can be seen as extending beyond the understanding of any institutional religion within modern western society. The worldview in these cosmologies include profound philosophies of life and ontologies describing, space, time, life and death. The idea of continuity, pervades throughout all living and non-living beings, humans, plants, animals, even rocks and minerals, elemental forces like water, air, fire, earth, as well as the realm of

⁶⁶ Diament, Gomes, Tófoli, "Ayahuasca and Psychotherapy: Beyond Integration," 64.

⁶⁷ Sophia Rokhlin and Daniel Pinchbeck, *When Plants Dream: Ayahuasca, Amazonian Shamanism and the Global Psychedelic Renaissance*, (London: Watkins Media, 2019), 4.

⁶⁸ Weiss, B., Miller, J.D., Carter, N.T. et al. "Examining changes in personality following shamanic ceremonial use of ayahuasca." Sci Rep 11, 6653 (2021). https://doi.org/10.1038/s41598-021-84746-0

⁶⁹ Simon Knoop, Zoom-interview, December 3rd 2021.

the dead. Everything, material and immaterial, embodies the divine in spirit. The spiritual aspect exists as an 'implicit dimension of the material world.'⁷⁰

The cultural anthropologist and musicologist Bernd Brabec de Mori sees these cosmologies, in comparison to the worldviews prevailing in the western society, as great advantages, mainly due to their ecological understanding of the world which brings certain flexibilities and carries an innovative potential:

'This flexibility also extends to the conceptualisation and structuring of time. In western understanding, the past seems 'solidified': the common everyday interpretation of time assumes an objective past which had actually happened, and a historical process determined by intersubjective interpretation of remnant of this past in the present – a search for 'one true past'.⁷¹

Such a 'constructive process' can be seen as not being defined by analysing things from the past, but by 'reflecting and re-creating the present.' Indigenous methods, such as shamanistic practices, Brabec de Mori argues, are the expressions of bettering, or perhaps manipulating, 'the present situation of the individual, a family or the collective group as identity,' through manipulation 'the relations between humans and non-humans,' resulting in some shift in reality.⁷² Because of their all-encompassing cosmovision, Mario says, 'the indigenous healing world is all about the spirit.' It's about 'the relationship that your energy has to the energy of itself.' A perspective that modern science would never allow:

'In the Mazatec tradition the only thing that they see when someone is ill, is that there is a broken relationship with the spirit. This produces some sort of dealignment with the soul, and the soul will have repercussions on the energy and the energy will have repercussions on the mind and the mind on the emotions. And this whole domino-effect ends up manifesting as illness or health. For them it doesn't matter if it's a stomach problem or a broken bone or borderline disease or alcoholism or if you have nausea, for them it's just a broken link with the spirit and the totality. A person is a unit. From the bones to the soul. It's a unit and you cannot separate it. So if there is a problem in your bones or in your eyes or in your mind it's all the same thing. There must be something wrong with the energy.'⁷³

The way to address any illness in the indigenous world is a broken connection with the spirit, a broken connection to the 'totality,' as Mario beautifully puts it. It assumes the existence of a spiritual dimension permeating all that is, the cosmic, the material, the vegetal, the geological; 'an ineffable energetic field in which the body, if put in the right attitude, can participate.'⁷⁴ An energetic field in which the shaman can intervene.

'Shamanism'

The ceremonial use of sacred plant medicines is closely associated with the shamanic tradition. Anthropologists in the early 20th century invented the word 'shamanism' as a classification of the many 'incomprehensible' practices performed by 'shamans.' It derives from the Siberian word 'Saman' which translates to 'someone who beats a drum, enters into trance and cures people.'⁷⁵ Mircea Eliade, one of the main

⁷⁰ Gina Buenfeld, "The UR Plant," in *The Botanical Mind: Art, Mysticism and the Cosmic Tree*, ed. Gina Buenfeld and Martin Clark, (London: Camden Art Centre, 2020), 18.

 ⁷¹ Bernd Brabec de Mori, "The Magic of Song, The Invention of Tradition and the Structuring of Time among the Shipibo," in *The Botanical Mind: Art, Mysticism and the Cosmic Tree*, ed. Gina Buenfeld and Martin Clark, (London: Camden Art Centre, 2020), 205.
 ⁷² Ibid.

⁷³ Mario Gomes, Zoom-interview, December 28th, 2021.

⁷⁴ Gina Buenfeld, "The UR Plant," in *The Botanical Mind: Art, Mysticism and the Cosmic Tree*, ed. Gina Buenfeld and Martin Clark, (London: Camden Art Centre, 2020), 17.

⁷⁵ Jeremy Narby, *The Cosmic Serpent: DNA and the Origins of Knowledge*, (London: Weidenfeld & Nicolson, 1998), 15.

figures in the history of religion, identified astonishing similarities in the practices and concepts in shamanistic practices around the world. He referred to the shamans as 'technicians of ecstasy.' ⁷⁶Where these 'technicians' operate, they specialize in a state of mind during which their 'soul is believed to leave the body and ascend to the sky or descend to the underworld.' A central idea in all shamanistic traditions is the notion of a ladder that connects heaven and earth and which they use to gain access to the world of spirits.⁷⁷ According to Eliade, the shamanic ladder can be considered the earliest version of Axis Mundi, the idea of an axis of the world that connects each and every 'level' of the cosmos, and has since the beginning of civilization been found in innumerable creation myths.⁷⁸ Jeremy Narby, an anthropologist who studied the multiple indigenous groups in the Amazon as well as participated in plant ceremonies, suggests that the meaning of the *axis mundi* essentially is to access the 'Otherworld', and to return with the knowledge that is found in these realms. He points out that 'there is a paradoxical passage, normally reserved for the dead, that shamans are able to use while living.' In this way, shamanism can be considered the set of techniques that allows one to 'negotiate this passage, reach the axis, acquire the knowledge associated with it, and bring it back - in order to heal people.'⁷⁹ Mario's take on the role of the shaman differs from that of Narby. For Mario, the shaman is not a healer, rather the shaman, or 'elder' as he prefers, are merely support, facilitating the experience:

'The idea that westerners have of the shaman is that he brings his magic wand, touches your forehead with his finger and enlights you and like that – you are healed. This simply is not true. The indigenous world is beautifully all about responsibility. You worked to get sick, now work to get well. It's the only way healing happens in the Mazatec Sierra or the Huichol Desert or in the Jungle. You did it, you fix it. And the person, the medicine person, who is there with you is only supporting, assisting, taking care, creating a safe space and atmosphere, taking care of the dosage of the medicinal plants, supporting you during the process. But they will not heal you. The word facilitator is very often used in this frame.'⁸⁰

This approach can be difficult for some people to accept but in the shamanic healing, this mind-set is crucial in the process of healing. The same goes for the use of substances in themselves: the idea of a pain-soothing drug is a western construct. Compared to the use of drugs in the west, the ceremonial use of ayahuasca and psilocybin can inform what Michael Pollan calls a 'moral model of drug use'. Instead of focusing on a chronic dependence on drugs like painkillers the ceremonial use of sacred plants is all about: 'focusing on personal healing, rebuilding community, harmonious family relationships, connection with the Divine and avoidance of addiction.' Knowing that such a model exists, Pollan suggests, 'requires us to reconsider the whole concept of 'drugs' and the moral failings we associate with them.'⁸¹ A psychedelic experience, especially in a ceremonial and collective setting, is work. Hard work. In many traditions, the shaman often dwells at the periphery of the community. This separation reflects a deeper meaning, providing a socio-spatial expression of a symbolic position with regard to the community. The shaman is an 'edge-dweller,' someone who dwells in the liminal space between different worlds. Positioned at the edge, between the unknown, the wilderness and the familiar community, it reflects the role as an intermediary between 'spirit and matter,

⁷⁶ Mircae Eliade, Shamanism: Archaic Techniques of Ecstasy, (Princeton: Princeton University Press, 1964), 4.

⁷⁷ Mircae Eliade, Shamanism: Archaic Techniques of Ecstasy, (Princeton: Princeton University Press, 1964), 259-260.

⁷⁸ Narby, The Cosmic Serpent: DNA and the Origins of Knowledge, 63.

⁷⁹ Ibid, 93.

⁸⁰ Gomes, Zoom-interview, December 28th, 2021.

⁸¹ Pollan, This is Your Mind on Plants, 212.

heaven and earth, rational and ephemeral.²⁸² The lineage of the Shipibo-Konibo, believes that the *onanyabo* – those who work with *oni* (ayahuasca) – is able to perceive energetic fields and permeating the body of their patient during a ceremony. After years of practice the onanyabo learn to notice such energies in the form of patterns and work with them.⁸³ The serpent is another important figure in the shamanistic practices and can be found in almost all indigenous art. Narby notes that in the lineage of Desana, an indigenous Brazilian people, two intertwining serpents which recurs in their art, symbolizes a binary opposition which has to be overcome in order to 'achieve individual awareness and integration.'⁸⁴ For many of the indigenous communities it is by altering the state of consciousness that one crosses this passage, by going back and forth between these worlds, bringing back useful knowledge that before was unobtainable.

Ritual and Ceremony

'In the indigenous world everything is a ceremony,' Mario says. 'Living is not a mechanical thing; every day is a unique relationship with life.' For the Mazatec people the ceremonial way of life constructs a purposeful frame in which to behave in specific ways to thank life. It's a way of living. In addition to this philosophy, they engage in different daily ceremonies. For instance, when they harvest the crops or when to place the seeds in the ground, to ask for the land to drill a dwell or to build a house, to bury their dead, to bring a baby, to welcome the rain.⁸⁵ The healing mushroom ceremony is deeply ingrained in the social fabric. In every traditional house in the Sierra, there is a ceremony room. The ceremony room is 'the heart of the house.' In this room the family will gather to heal. 'Many times, the illnesses are family illnesses due to a disharmonious relationship like a disagreement or trauma, in those situations, the whole family get sick,' Mario says. They consider collective disharmonious events like illnesses. The collective healing practices have impact on the whole community because it is seen as creating healing ripples from one family to another.

For the Huni Kuin, the ceremonies and the preparation of the medicine 'brew' includes the participation of the whole community. Each one responsible for different tasks in the preparation. The preparation is a ritual in itself. The ayahuasca ceremony takes place once a week in a special communal space, mostly during the night. 'I had done several ayahuasca ceremonies in a non-indigenous way before but the experience with the Huni Kuin was very different,' Simon discloses, 'the main difference is the use of music.' Music creates a dramaturgy that leads through the ceremony, reflecting different stages or characteristics of the medicine, which are supported by singing. 'I didn't know the meaning of the songs, but they were very healing in themselves.'⁸⁶ In the Shipibo-Konibo lineage, as with many other indigenous groups, music is an important tissue in the ceremonial setting, especially when it comes to healing. The shaman usually performs *icaros*, a sort of healing music that is whispered, whistled, and sung to stimulate contact with other dimensions. As the language of the spirits, music is considered sacred and potent.⁸⁷

Nature as Medicine

⁸² Rokhlin and Pinchbeck, *When Plants Dream: Ayahuasca, Amazonian Shamanism and the Global Psychedelic Renaissance*, 72. ⁸³ Ibid, 73.

⁸⁴ Narby, The Cosmic Serpent: DNA and the Origins of Knowledge, 57.

⁸⁵ Gomes, Zoom-interview, December 28th, 2021.

⁸⁶ Knoop, Zoom-interview, December 3rd 2021.

⁸⁷ Bernd Brabec de Mori, "The Magic of Song, The Invention of Tradition and the Structuring of Time among the Shipibo," 206.

The ceremonial use of sacred plants is closely associated with the shamanic tradition. Sacred plants have an alchemical nature, and like the paradigmatic passage of the serpent, they have the potential to bring forth truth from the unconscious, induce transcendent states and provide access to mystical encounters with divinity.⁸⁸ The famous herbal medicines are of course the psychoactive ones, but in general they use plant medicines for a lot of reasons, like Salvia Divinorum, and many others.⁸⁹ Indigenous communities derive shelter, clothing, food, weapons and medicine, from nature. For the Shipibo, in the Peruvian Amazon, the forest is the most important thing they have. Over the centuries, indigenous cultures has cultivated plant knowledge as well as learned to live in 'intimate symbiosis with the invisible powers and chemical messengers hidden in the biotic world.'⁹⁰ The use of psychoactive plants which alters states of consciousness is considered 'a means of transportation (between realms), transformation (through healing), and ultimately transmutation (enlightenment).'⁹¹ Mario suggests that what you really access during a sacred plant ceremony is an heightened state of consciousness and the dissolution of the ego:

It's impossible to understand or to describe in normal language what happens. Sacred plants take you a situation where the veils are taken off your eyes. The facades that we have built up begins to collapse in front of our eyes, until the illusion has completely crumble and the ego is not operative anymore. For the Mazatecs what they are really looking for is to stop the ego from operating for a few hours. If you take sacred plants like mushrooms or ayahuasca it will eventually stop your mind from thinking. Then you are left aware in silence. In consciousness. The basic invitation of sacred plants is to know that; you can expand into consciousness and transcend every moment.⁹²

Ethnobotanist and biologist Richard Evans Schultes, learned from living in the Amazon in the 50s that 'ayahuasca was for more than a shamanic tool; it is the source of wisdom itself, the ultimate medium of knowledge for their entire society.'⁹³ In the ayahuasca community it's a common belief that the medicine is intelligent. If ayahuasca is an intelligent entity, what is her agency? Canadian Scholar Elena Andrade proposes that: 'An integration of these plants into personal practices raises question about the limits of the human, and whether interspecies communication represents the next stage of development for our species of the planet. It is possible that ayahuasca has a meaningful role in our future evolution?' ⁹⁴

Plant-Intelligence

The plant kingdom with its variety of species have been intimately entangled with the history and evolution of humanity. Providing a source of shelter, fuel, tools, decoration, adornment, medicine, the importance of plants can't be stressed enough. Despite being fundamental to the existence of life, plants have for long been subject to devaluation, instrumentalization and neglect by western industrialized society. For me, it's hard to talk about the relationship to these plants. They are not just a substance; they are sentient beings. They are not a 'thing,' but a relative. In a similar manner, the authors of *The Botanical Mind*, dive into what they call 'plant sessility,' building the argument that plant should be regarded as intelligent, sentient beings. A view

⁸⁸ Buenfeld, "The UR Plant," 15.

⁸⁹ Gomes, Zoom-interview, December 28th, 2021.

⁹⁰ Narby, The Cosmic Serpent: DNA and the Origins of Knowledge, 8.

⁹¹ Buenfeld, "The UR Plant," 15.

⁹² Gomes, Zoom-interview, December 28th, 2021.

⁹³ Rokhlin and Pinchbeck, When Plants Dream: Ayahuasca, Amazonian Shamanism and the Global Psychedelic Renaissance, 12.

⁹⁴ Ibid, 9.

shared by many indigenous traditions. Instead of seeing plants as passive and unintelligent, plants demonstrate 'communication, memory, learning and problem-solving', attributes commonly affirmed intelligent beings:

Plants have the ability to learn from experience and their environment: they interact not just with other plants, but other animals and insects in complex and highly manipulative ways, and their rhizomatic root structure and decentred collective intelligence, provides a hyper efficient model for gathering and communicating information – a far more modern and radical way of thinking about social and environmental relations.⁹⁵

The authors ask 'what exactly does it mean to talk about plants in this way? To ascribe them not just a kind of agency, but a kind of intelligence or consciousness even?' In the *Life of Plants: a Metaphysics of Mixture* (2018), philosopher Emanuelle Coccia develops an 'atmospheric' ontology based on the vegetal world:

One cannot separate the plant – neither physically nor metaphysically – from the world that accommodates it. It is the most intense, radical, and paradigmatic form of being in the world. Plants embody the most direct and elementary connection that life can establish with the world. The opposite is also true: the plant is the purest observer when it comes to contemplating the world in its totality.⁹⁶

This totality defines a relationship of *absolute interiority*. Because 'if everything is everything, not only does each thing contain all other things, but a thing has to find itself within no matter what other thing.' For us to be talking of plants then, it demands a different kind of talking. Plant ontology is a sort of being in the world where one no longer is able to experience being in a place without finding this place within yourself, thus 'becoming the place of your place.^{'97} The vitality of life that perpetuates the plant kingdom can thus be understood as producing an infinity of 'becomings': plants become not an object nor a body, but a process. Process philosophers like Alfred North Whitehead consider the ontology of life as a process, an 'event ontology'. An ontology of events describes the world as temporal entities, ordered by relations.⁹⁸ In this instance, architecture, like art, is a process too. A process of unlimited unfolding, 'of creation and growth,' which produces material abstractions of intuition, perception, sensation, enquiry, speculation and thought.99 In his final section, Coccia urges the reader who is concerned with epistemology that 'instead of aiming to build itself out of cognitive elements already structured, ordered and dressed up,' she who seek true knowledge, should aim to 'transform any subject, object, or event into an idea, just as plants are capable of transforming any scrap of earth, air and light into life.' For Coccia, this would construct a radical, liminal cosmology, refusing the mechanistic worldview, 'indifferent to the places, forms and ways in which it is practices.'100 This echoes Barad's agential realism and her construction of an onto-epistemology, where 'knowing is a material practice of engagement as part of the world in its differential becoming.'101

⁹⁵ Martin Clark, "On Being Sessile," in *The Botanical Mind: Art, Mysticism and the Cosmic Tree*, ed. Gina Buenfeld and Martin Clark, (London: Camden Art Centre, 2020), 183.

⁹⁶ Emanuele Coccia, 'On Plants, or the origin of the World, in *The Life of Plants: A Metaphysics of Mixture,* 1st ed, (New York: Wiley, 2018), ch.1, <u>https://www.perlego.com/book/1536699/the-life-of-plants-pdf</u>.

⁹⁷ Coccia, 'Everything is Everything' in *The Life of Plants: A Metaphysics of Mixture*, ch.9,

⁹⁸ Johanna Seibt, "Process Philosophy", *The Stanford Encyclopedia of Philosophy* (Spring 2022 Edition), ed. Edward N. Zalta, <u>https://plato.stanford.edu/archives/spr2022/entries/process-philosophy</u>.

⁹⁹ Clark, "On Being Sessile," 191.

¹⁰⁰ Coccia, 'On Speculative Autotrophy,' in *The Life of Plants: A Metaphysics of Mixture*, ch.14.

¹⁰¹ Barad, *Meeting the Universe Halfway*, 89.

Becoming and Healing

The worldview of the indigenous world can be seen as reflected in the noetic realm: the universal and intentional spirit transcending structures of mind, structures of language, structures of known territories, looking beyond these structures. The indigenous world, through their ceremonial way of living they constantly interact and relate to nature, ancestors, mortality, vitality. *What is healing about for the Mazatec people?* I ask Mario during our interview. His answer reveals a lot about the problems of modern medicine, the disconnection to life and the understanding of life as process:

The Mazatecs never consider themselves completely healed. You never really finish healing. It's an invitation to continue transcending your imperfections. Basically, we are born ill, and the quest is to find a path to harmony, little by little. That is more the indigenous perspective. Recognizing that there is an aspect that you have neglected or ignored and that you have to become aware of. It's deep work. You come to a sacred plant ceremony, four to six hours of intense work, to figure out what you're going to do with yourself. To see if you can get a glimpse into how you can grab your consciousness. *The work is about recovering yourself.*¹⁰²

In consensus with Mario, Gabor Maté, physician and addiction specialist, believes that illnesses are caused by a psycho-spiritual condition, rather than merely physical. For Maté, modern medicines' pursuit of 'the cure' fails to grasp the very 'essence of healing.' In *In the Realm of Hungry Ghosts: Close Encounters with Addiction* (2008), he builds this argument by studying people with severe addiction. In the epilogue he talks about how he learned about the approach of ecological healing through the encounters with shamanic plants medicines and practices, such as ayahuasca. He writes about modern medicine's failure to acknowledge an 'ecology of healing'; of seeing illnesses as 'isolated, accidental and unfortunate, rather than the outcomes of lives lived in a psychological and social context; as the body's expressions of experiences, beliefs and patterns of relation to self and the world.'¹⁰³ The indigenous use of psychedelics plants arises from an old tradition where 'the body and mind are seen as inseparable.' He states that 'in a proper ceremonial setting ayahuasca and other plant-based practices, may achieve in a few hours, what years of psychotherapy can only aspire to do.'¹⁰⁴ For Maté, the healing properties of sacred plants may reveal the essential unity of mind and body. The role of experience he thinks, can 'powerfully affect the hormonal apparatus, the nervous and immune systems, and all organs such as the brain, the gut, and the heart.'¹⁰⁵

Even though recent brain-imaging studies suggest that there is evidence for the positive effects caused by psychedelic treatment (like increase of blood flow to different areas of the brain) they don't attempt to illustrate the experience of the participant. In the end it's the participants – not their brains – that has the experience. What is exciting is that it's exactly the experience in itself that creates the therapeutic effects of psychedelics. In studies that measured the effects of psilocybin on terminally ill cancer patients, those who had the strongest mystical experiences showed the highest reduction in symptoms such as anxiety and depression. Patients' psychedelic experiences themselves appear to be the cure.¹⁰⁶ What the psychedelic

¹⁰² Gomes, Zoom-interview, December 28th, 2021, my emphasis.

 ¹⁰³ Gabor Maté, "The profound power of an Amazonian plant – and the respect it demands," *The Globe and Mail*, December 21st, 2015, https://www.theglobeandmail.com/opinion/the-profound-power-of-an-amazonian-plant-and-the-respect-it-demands/article27895775/.
 ¹⁰⁴ Gabor Maté, *In the Realm of Hungry Ghosts: Close Encounters with Addiction*, (Berkeley: North Atlantic Books, 2008), 25.

¹⁰⁵ Gabor Maté, "The profound power of an Amazonian plant – and the respect it demands."

¹⁰⁶ Sheldrake, Entangled Life: How Fungi Make Our Worlds, Change Our Minds & Shape Our Futures, 123.

experience offers it the 'dissolution of the ego,' a loss of self which allows oneself to become part of a greater whole, sensing a profound feeling of empathy and oneness with universe.

Today, around the world an estimated 240 million are alcoholics, 15 million inject drugs and more than a billion are addicted to tobacco. Worldwide, about half a million deaths are attributable to drug abuse.¹⁰⁷ These drugs are the ones that trigger the dopamine circuit, inducing floods of artificial pleasure. Sugar, shopping, gaming, and other digital addictions as well are linked to the dopaminergic effects. As the leading cause of disability worldwide, 280 million people suffers from depression, a number which is expected to rise with the COVID-pandemic. Of those affected, a disproportionality high rate is reported from African American and Hispanic communities, with women more likely to report problems than men.¹⁰⁸ As the fourth leading cause of death in young adults, 700 000 people die to suicide every year.¹⁰⁹ Unfortunately, a common advancing of mental health issues of all kinds. In 2021, eating disorders affected at least 9% of the population worldwide, and among the deadliest of mental illnesses, 26% of people suffering from ED attempt suicide.¹¹⁰ ED is commonly linked with body dysmorphia, a condition which suggest some sort of mental disconnection to the body. Even though research is only emerging, preliminary studies suggests that psychedelics like ayahuasca offer a powerful treatment for ED. Patients in these studies report feeling a 'renewed appreciation for the miracle of life, as well as their own embodied, earthly lives,'¹¹¹ overcoming the deep sense of self-loathing and disgust commonly experienced by patients.

Through an interaction with the indigenous practices, we can learn that the body and the mind are not separated. Without a change of paradigm, Western medicine may remain incapable of finding usable solutions. Through the emergence of psychedelic 'clinics', places where people may access this healing, architecture can possibly help steer towards such a paradigm shift.

Colonialism

The topics of colonialism, exploitation and extinction penetrates this whole thesis. I started this investigation as a means to seek perspectives pejorated by the West, an idea that emerged through my own interactions with plant medicines. After studying the Huni Kuin, Simon learned that patriarchal structures are a problem that was brought with colonialism, what he calls the 'colonization of mind'. Before this moment in time, most indigenous cultures were non-hierarchically structured, often with a strong matriarchy. Somewhere along the way they adapted to the patriarchal structure. The structure of a leader, a chief in charge of decisions, was also a structure that the inquisitors brought with them: 'in order for the colonizers to colonize they initiated such hierarchies to be able to impose their new laws and rules, to efficiently control and manage the indigenous peoples.'¹¹² Another example of the colonization of mind of the indigenous people can be seen in the presence of punishment methods on kids today. Such methods were also introduced by the Europeans. A

¹⁰⁷ "Opioid Overdose," World Health Organization, August 4th, 2021, <u>https://www.who.int/news-room/fact-sheets/detail/opioid-overdose</u>.

¹⁰⁸ "The Implications of COVID-19 for Mental Health and Substance Use," KFF, February 10th, 2021, <u>https://www.kff.org/coronavirus-</u> covid-19/issue-brief/the-implications-of-covid-19-for-mental-health-and-substance-use/.

¹⁰⁹ "Depression," World Health Organization, last modified September 13th, 2021, <u>https://www.who.int/news-room/fact-sheets/detail/depression</u>.

¹¹⁰ Jon Arcelus et al. "Mortality rates in patients with anorexia nervosa and other eating disorders. A meta-analysis of 36 studies." Archives of general psychiatry 68,7 (2011): 724-31. <u>https://doi.org/10.1001/archgenpsychiatry.2011.74</u>.

¹¹¹ Rokhlin and Pinchbeck, When Plants Dream: Ayahuasca, Amazonian Shamanism and the Global Psychedelic Renaissance, 112.

 $^{^{112}}$ Knoop, Zoom-interview, December $3^{\rm rd},$ 2021.

similar pattern can be seen with domestic abuse: 'They reproduce the very same patterns that were inflicted on them,' Simon acknowledges. Many women are also becoming medicine women again, something that they traditionally had been, but which disappeared more and more with colonization. Throughout the thesis we've touched upon questions of intellectual property, cultural appropriation and further colonization of the indigenous. To what extent can their healing practices be spread to the West? And is the use of plant medicines – after centuries of exploitation – justified? In the interview with Simon I ask him about this topic, how the Huni Kuin approach the global interest in the medicine. After all, their organization started as a means of cultural exchange:

I have the perception that most people are positive to the spread of ayahuasca because it creates new connections. For us, this was the main interest and message from the medicine from the beginning, why we decided to start this project with the Huni Kuin. Now it has of course developed into a deeper exchange of culture, friendship and relations, not focusing so much on ayahuasca specifically. Westerners are very fascinated by ayahuasca, and the hope is that this can be beneficial for the indigenous. More conventional elders believes that ayahuasca shouldn't be spread and should not be taken by anyone, emphasizing the ceremonial way of doing it, and for them everyone is not fit for the spiritual experience. But today, most of the Huni Kuin are open to the spread of ayahuasca, they are proud of their culture and see this as a possibility to share their knowledge but important to remember they also see it as a means of making revenue, an economical opportunity.¹¹³

Because the Huni Kuin are already in what Simon calls 'the money-loop' it's better if they'd make more profit: potentially as with fair trade organic coffee or cacao, ayahuasca can provide long-term income for ethical local grower and a 'cultivation' of these plants can provide a path toward a sustainable and equitable future for indigenous communities.¹¹⁴ For Simon the critical point in this 'westernization' of the medicine and in the process of taking it 'out of context', will be to strongly honour the medicine and the heritage of it. To avoid cultural appropriation, it's important not to mimic or 'take' aspects of the ceremonies without permission, for example the use of songs or music, but instead adapt the experience to something that is meaningful to the western participants.

For Mario, the question of the western interest seems less problematized, perhaps from the historical background of ritual tourism already taken place in the Mazatec Sierra and the surroundings:

I think it's wonderful that it has spread to the West, for it will be able to heal a lot of people. Yes, it's beautiful how these sacred plants are used in the indigenous world. It's also very beautiful that the western world has taken the courage to look back into nature and native traditions. Yet, I think the biggest mistake, what westerners has done from the beginning, is to try to be them [the indigenous] when we will never be them. You can only be an observer – from very far away. And therefore, I find very nice, after decades of fighting [referring to the War on Drugs], we have the right to explore ourselves without anyone trying to control us. Thanks to that, finally the system has acknowledged that these medicines are incredibly useful. [...] And maybe it's going to be synthetic psilocybin. I have seen the settings they give these substances in a therapy room with the eye-shades and the binaural sounds in their ears, with a cosy cover and a comfortable cushion and the psychiatrist holds their hand during the session. For me these are incredibly sad and pathetic settings, but, if there is someone who has this possibility through synthetic substances in

¹¹³ Knoop, Zoom-interview, December 3rd, 2021.

¹¹⁴ Rokhlin and Pinchbeck, When Plants Dream: Ayahuasca, Amazonian Shamanism and the Global Psychedelic Renaissance, 112.

a small therapy room, and this experience still can make them open their consciousness and change their life. If you're going to come out of that hospital better than before, great.¹¹⁵

Decentralization

The global renaissance in psychedelics and rising popularity indicate we might be in the apex of a profound paradigm shift, reflected in science, philosophy and possibly religion. Thomas Roberts, professor in educational psychology, presents a theoretical framework for underpinning the contemporary rediscovery of the psychedelic experience in relationship to the history of religion. He posits that with the spread of psychedelic medicine, if directed towards the mystical experience, we might see a transition from an 'era of word-based religion' to an era of 'experience-based' religion. A future religion could be a combination of practices that integrate an access to mystical experience and science of consciousness. The possibility of exploring altered states in safe settings may lead to the participants learning how to 'access particular dimensions of consciousness as well as subtle capacities like intuition, inspiration and imagination.'¹¹⁶ And like the practices of indigenous peoples, knowledge extracted from these states could then be applied in the normal experience of the world, almost like the development of meditation, except this are induced by psychedelic substances in ceremonial settings. Science and spirituality can finally synthesize in a creative, decentralized practice. Parallels can be drawn to the wave of decentralization taking place globally today. Cryptocurrencies challenges the institutional structure of money. In a similar way, the decentralization of spirituality and health, challenges at once the institutional structures of medicine and religion. And these decentralized structure holds a promise to heal the population. For Mario, the 'psychedelic movement' is still too egoistic:

One of the great problems with the 'psychedelic movement' today in the west is that many people approach it incredibly egoistical. And in that sense, compared to the indigenous, it's still very immature, and it's not going to bring an operative humanity [...] It's important to heal individually, but at the scale of humanity, the potential of an individual healing is also that it can heal the next person. If we have a society where everyone is responsible for healing themselves, to recover their relationship with themselves, their bodies, nature – if each one of us is responsible – then we can talk about collective healing, to be better for one another.¹¹⁷

However, for a decentralization to occur, these healings must be accessible to everyone. As the West acknowledges these substances as beneficial a 'decriminalization' of nature will take place, but what must come along is the 'democratization' of these practices. Currently, such therapies exist in a privileged layer of the western society.¹¹⁸ The illegal status of these medicines creates unregulated 'underground-practices' where the facilitators put a high price for consciousness, or it forces well-paid tech-workers abroad to join a 'authentic' indigenous ritual in luxurious retreats. Both paths perpetually exclude a major part of society. The emergence of a 'psychedelic-industrial' complex may continue to increase social,

¹¹⁵ Gomes, Zoom-interview, December 28th, 2021.

¹¹⁶ Rokhlin and Pinchbeck, When Plants Dream, 122-123.

¹¹⁷ Gomes, Zoom-interview, December 28th, 2021.

¹¹⁸ Roberto Lovato, "The Gentrification of Consciousness," Alta, January 4th 2022,

https://www.altaonline.com/dispatches/a38326035/psychedelic-drugs-gentrification-roberto-lovato/.

economic gaps, leading to the 'gentrification of consciousness.' How can this be avoided? How can we assure the decentralization of health; healing which is equal and accessible to everyone?

Conclusion

As the interest to integrate healing practices from the indigenous world grows, it will be difficult to define a respectful path with integrity. Without careful attention and consideration, dialogue, and exchange, we risk perpetuating the history of colonization and exploitation. The realization of the egocentric, predominantly white, individualistic, self-care model of psychedelic healing that is emerging right now implies that there needs to be an inclined format for these practices to take place. A format which holds this complexity of practice, ecology, collectivity, pharmacology, and culture while responding to the enforcing of local integrity, history and ancestry? An incredibly important aspect reflecting on the social fragmentation in the West, and especially in my personal context of Sweden. Our notion of collectivity is long gone. How can the epistemological aspects be emphasized; how can we learn to 'hear' the message of the plant kingdom? How the importance and sessility of the vegetal world really be acknowledged seriously? And with a recognized plant onto-epistemology, does it really make sense that nature is criminalized? What sort of environments, programs and places can we create to answer these questions? In which ways, settings and formats can we think of the hospital in the 21st century? And perhaps the most radical question of them all; can sacred plant healing alter the global level of consciousness? And if so, can this heightened state be the answer to our planetary social, economic, political, and ecological dilemmas?

CHAPTER 3

The Architect the Noet

In the following chapter, the philosophical notion of the noetic will be explored, as a method of moving from personal experience to shamanic cosmology to the realm of philosophy and architectural theory. Departing from Edmund Husserl's phenomenology, the noetic is investigated as a perceptive and cognitive instrument with the potential to open up rigid thinking and prejudice, offering new ways of 'seeing' in the world. Rather than the dualist separation of the body and the mind, the noetic realm is about feeling *together with* thinking, a perception which produces other types of knowledges. Such perception can be drawn to Deleuze's theme of *symptomatology*. Architects, like poets and clinicians, can be seen as 'symptomatologists' or *Noets*. From this philosophical position I discuss the noetic in relation to the themes discussed in the previous chapters: Body, Space and Knowledge, intending to move towards ways of thinking about architecture and towards the development of design methods. Through noetic methods, architecture has the potential to dissolve and rethink cultural and socio-political boundaries.

Phenomenology

Edmund Husserl, as one of the many critics of Descartes' method and ontology, provided modern society with an articulation of a 'scientific philosophy', aimed to methodologically describe experience. In his *Cartesian Mediations* (1960), Husserl develops his project of moving from observation to experience, searching for an alternative scientific systematic universality to the examination of the things themselves, forming what he calls a 'genuine science' later becoming the philosophical branch of phenomenology. In a paragraph called *Evidence and the idea of genuine science* Husserl considers how evidence must be, 'in an extremely broad sense, an "experiencing" of something that is, and is; thus, precisely a mental seeing of something itself.'¹¹⁹ Husserl adopts the first-person conscious awareness as epistemic basis, and from there, proposes a systematic study of such consciousness through a methodology called the 'phenomenological reduction.' Having reduced the ego to a transcendental dimension, one can examine the world as it appears to her and truly discover its meaning. So, how, in the transcendental dimension, can meaning, objectivity and validity be achieved? This, Husserl explains through the notion of intentionality; the directedness of any mental experience to an object, an analysis concerning consciousness in its universality and relations.

Intentionality

Husserl's intentionality enables an understanding of how mental processes are 'to be consciousness *of* something.' Intrinsic to every mental process there is a conscious 'regard' which is directed from the ego to the 'object.' Thus, a perceiving is always 'a perceiving of something.'¹²⁰ Through the phenomenological lens, all sorts of interrelated objects might appear to us, and what is presented is a potential field of perception, flowing together into the intuitive unity as a conscious field.¹²¹ Intentionality is the characterization of this flow as unifying in consciousness.

The concept of intentionality employed by Husserl can be traced back to the philosopher and psychologist Franz Brentano. Brentano posits that philosophy and especially philosophical psychology, should adopt a 'scientific' method based on observation, facts, and induction, through an empirical epistemology which relies on consciousness or inner perception as source of knowledge.¹²² In *Psychologie* (1874), Brentano looks at intentionality, however, not from a phenomenological standpoint. Instead, Brentano seeks criteria which can distinguish physical and psychical phenomena as a means to differentiate the realm of experience of the natural sciences from psychology.¹²³ For Brentano, every psychical phenomenon displays, as the defining character, a relational structure: an intentional relation. Moreover, every psychical phenomenon shows two correlates: first, an act of consciousness and second, the object of which the act is perceived, not to be mistaken for the actual physical object, but rather what is perceived as the immanent object in the mind,¹²⁴ what can be thought of as the meaning of the object. The act is the directionality of intention while the object is the content of the act; the correlating object perceived is the content of the conscious act. Like

¹¹⁹ Edmund Husserl, *Cartesian Meditations: An Introduction to Phenomenology*, trans. Dorion Cairns, Seventh impression, (The Hague: Martinus Nijhoff Pulishers, 1982), 12.

¹²⁰ Edmund Husserl, *Ideas Pertaining to a Pure Phenomenology and to a Phenomenological Philosophy*, First Book: General Introduction to a Pure Phenomenology, trans F. Kersten (The Hague: Martinus Nijhoff Pulishers, 1983), 199.

¹²¹ Husserl, Ideas Pertaining to a Pure Phenomenology and to a Phenomenological Philosophy, 200.

¹²² Wolfgang Huemer, "Franz Brentano", The Stanford Encyclopedia of Philosophy (Spring 2019 Edition), ed Edward N. Zalta, https://plato.stanford.edu/archives/spr2019/entries/brentano/.

¹²³ Peter Andras Varga, *Brentano's Influence on Husserl's Early Notion of Intentionali*ty, Studia Universitatis Babes-Bolyai, Philosophia (1-2), 2014, 31.

¹²⁴ Franz Brentano, *Descriptive Psychology*, trans. Benito Mülller, (London: Routledge, 2002) 180.

Husserl there must be an object or content to which a conscious act is directed. Thus, every mental process, such as thinking, remembering, feeling is always directed and correlating towards something. This implies a certain subjective agency, crucial to the development of Brentano's empirical epistemology.

Noesis and Noema as Intentional Act

Scholars have criticized Brentano for not clarifying an ontological standpoint of the intentional object,¹²⁵ where his initial formation does not address any ontological status, i.e., can the primary content be an imaginary object? An important problem considering Brentano's desire to differentiate specifically the psychical and physical realm. Husserl approached this problem by exploring only the conscious act itself. Husserl refers to the experience's directedness as 'noesis' (from the Greek nous 'intelligence, thought), and to the object experienced as 'noema' (from the Greek noêma 'concept, idea, perception').¹²⁶ Hence, for Husserl, the study of intentionality is the analysis of the noesis-noema correlation, stepping into the conscious act and the 'content' of consciousness itself. Ultimately developing a method to represent meaning through showing that an individual consciousness contains in itself an objective content. This objective content can be reached through the phenomenological reduction presented earlier, a reduction of everything that is the 'external' perception such as prejudice, and language, that which is taken for granted. In regard to the question of imaginary content, that is when not perceiving a physical thing at all, Husserl elaborates on the phenomena of turning our regard to an object of memory.¹²⁷ Instead of going through a perceptual noesis, the regard goes through a 'remembering noesis,' leading into a world of memory. Thus, for Husserl, the noetic experience can be both that of immanent perception, but it can also be that of a commemorative experience. Through the noema, even imagination and concepts can become intentional acts.

'Owing to its noetic moments, every intentive mental process is precisely noetic,' Husserl writes, for it is conscious of something, 'and it is so according to its essence, e.g., as memory, as judgment, as will.'¹²⁸ This essence is *noesis*. Noetic moments are moments of pure consciousness and awareness where the relational structure is visible and immanent. Correlating in every situation pertaining noetic content, there is, what Husserl calls, a 'multiplicity of data' existing in a corresponding 'noematic' content, that is the *noema*.¹²⁹ Husserl gives the example of perception, 'perception, for example has its noema, most basically its perceptual sense, i.e., the perceived as perceived.' In the case of perception, the noesis of perception is the directedness towards the perceived, while the noema constitutes what can be understood as the milieu or the environment, allowing the noesis to happen. The noetic can thus be seen as a vector, pertaining aspects of movement and directionality towards creation of meaningful existence. What is left in the experienced world after the phenomenological reduction of intentionality? How is reality viewed through the Noetic lens? What is Noetic Body? Where is Noetic Space? How is Noetic Knowledge?

Body, Space, Knowledge

Even though Brentano's spatial consciousness requires the existence of a body there is no direct recognition of the body as the main medium where inner perception takes place, something that Husserl and Maurice

¹²⁵ Wolfgang Huemer, "Franz Brentano".

¹²⁶ "Noesis" and "noema," Online Etymology Dictionary, <u>https://www.etymonline.com/word/noesis</u>, <u>https://www.etymonline.com/word/noematic</u>.

¹²⁷ Husserl, Ideas Pertaining to a Pure Phenomenology and to a Phenomenological Philosophy, 223.

¹²⁸ Ibid., 213

¹²⁹ Ibid.

Merleau-Ponty develops later on in the phenomenological discourse. In Phenomenology of Perception (1945), Merleau-Ponty posits that our lived body enables us to access the world.¹³⁰ The world is always 'already there before reflection begins,' Merleau-Ponty writes, existing infinitely as a spatio-temporal continuum of potentiality, yet the meaning of the world is created in reflection. There is no separation between the body and its environment as the lived body is the medium for having a world.¹³¹ Edward S Casey means that the body possesses a 'corporeal intentionality,' discussed in contrast to Brentano's intentionality of mind. By replacing the dualism of body and mind, the notion of corporeal intentionality binds us to the environment we inhabit through an 'intentional arc,' and through this arc we are anchored to the world.¹³² There is a bodily intentionality and agency, simultaneously sensitive and universal, which orients the body to the world, and Merleau-Ponty means that this orientation or 'organic relation' must be the origin of space, and this orientation is understood as the 'gearing of the subject onto his world.'133 The origin of space is found in the experience of the movement of the body. What is more important, Casey notes, the lived body is the origin of 'spatializing' as well as 'spatialized' space, meaning that space as experienced by our bodies is 'neither a collection of points nor a conglomeration of sheer relation' in the Brentantian sense; 'nor is it to be conceived as a matter of containment,' in the Cartesian sense. Rather, body, and therefore space - the spatial body incorporates what Casey calls inhabitation. Inhabitation as the result of two important features: expressive movement (spatializing) and bodily orientation (spatialized).¹³⁴

The places we inhabit are known by the bodies we live. We cannot be in place without being embodied. In architecture, one of the most critical voices in the modern debate on cognition and perception is the phenomenologist and philosopher Juhani Pallaasmaa. In *The Eyes of the Skin: Architecture and the Senses* (1996) Pallasmaa's incentives urge the deconstruction of what he calls an 'ocular-centric' and intellectual architecture prevailing since modernity because it contributes to the disappearance of its sensual and embodied experience. Such an architecture disengages and isolates the body, while making a reading of a collective signification impossible. 'Modernist architecture at large has housed the intellect and the eye, but has left the body and the other senses, as well as our memories, imagination and dreams, homeless.'¹³⁵ Pallasmaa observes that the ocularcentric tradition intensifies with Descartes objectifying philosophy where vision was considered the most privileged and noble of the senses.¹³⁶

Conclusion

This prevailing paradigm in architecture and other forms of artistic expression, impacts our relation to the world, to each other and our relation to ourselves.Following Pallasmaa's impetus, architecture ought to confront and consider the 'metaphysical questions of the self and the world,'¹³⁷ and by doing this, architecture may enable an experience that goes beyond the limitations of the Western paradigm of concept and abstraction. The main task of architecture is then, in the very words of Pallasmaa, 'to reconstruct the experience of an undifferentiated interior world, in which we are not mere spectators, but to which we

¹³⁰ Maurice Merleau-Ponty, *Phenomenology of Perception*, trans Colin Smith, (London: Routledge, 2002), 130

¹³¹ Ibid., 95.

¹³² Edward S. Casey, The Fate of Place: A Philosophical History, (Los Angeles: University of California Press 1998), 229.

¹³³ Merleau-Ponty, *Phenomenology of Perception*, 293.

¹³⁴ Casey, The Fate of Place: A Philosophical History, 231.

¹³⁵ Juhani Pallasmaa, The Eyes of the Skin: Architecture and the Senses, (Chichester: John Wiley & Sons Ltd, 2012), 22.

¹³⁶ Pallasmaa, The Eyes of the Skin: Architecture and the Senses, 22.

¹³⁷ Ibid.,19.

inseparably belong.'¹³⁸ Just like the art of poetry, *poiesis*, which aims to bring us back to the centre of an interior world and exceed the prevailing structures of language, noetic architecture, through *noesis*, carries the hope of bringing the body back to the conscious unfolding experience of life. Acknowledging that the ocularcentric paradigm correlates with the development of Western 'ego-consciousness' and the separation of the self and the world, Pallasmaa appoints this problem to be a problem of modernity. Likewise, the problem of mental health predominantly belongs to the modernized cultures, where thinking and seeing still today is seen as inferior to feeling and emotion. The disconnection the body and the mind, emerging with the medicinal breakthroughs and the disappearing of spirits in the 17th century's scientific revolutions, is the very foundations of this problem. A separation which is reflected and intensified in the ocularcentric paradigm of art and architecture and implicitly in the impoverished metaphysical experience of space and time.

CONCLUSION

The Surgeon is the Shaman is the Noet is the Architect

¹³⁸ Pallasmaa, *The Eyes of the Skin: Architecture and the Senses*, 28.

Concluding the research one main insight reveals itself louder than the rest. This is the insight that the Surgeon, the Shaman and the Noet are all symptomatologists, redefining and shifting their local boundaries, whether it's a question of corporeal thresholds, spiritual passages or semiotic limitations. The surgeon being the most hands-on material noetic practice by cutting through the skin, yet at the same time the surgeon is concerned with language, classification and imagery. The shaman, in an opposing but overlapping way, uses energies and spiritual connections as a noetic tool to heal, rarely permeating the flesh of the skin. Meanings are created through experience and there is no separation between the material and the 'immaterial.' All material and immaterial beings consist of a singular spirit which connects everything and everyone to an allencompassing universe. The noet, at last, position herself in-between by overlapping these two practices, mediating the material and the spiritual into a coherent and westernized understanding of the noetic experience. The noetic experience in the body, reconciliating the body and the mind, inter-connecting the material and the immaterial in an embodied experience of insight, connection and growth, has the potential to shift rigid structures. A rebooting of the mental system which presents itself as change of emotion, perception, cognition and behaviour. What if the noetic can be instrumentalized into the body of architecture? How can such a methodology be constructed and applied? Can the noetic be instrumentalized? These are questions I will ask myself through the design project *The Hospital of Thinkable Boundaries*. Wish me good luck! Proceeding with the development of methods was for me a conscious decision because the question of how is more productive than the question of what. How can architecture be healing? How can the noetic tool be applied in an architectural project? In this concluding chapter I will collect and present the main themes extracted from the findings as a means of materializing the noetic as not just a cognitive tool but an architectural one.

THE HOSPITAL OF THINKABLE BOUNDARIES Noetic Methods in Architecture

At this point in the project, I have developed a layered architectural method that concerns the following: (i) the dialogue between the material and the immaterial context, both regarding the stories and elements on site, depicting the shapeshifting contextual character, and furthermore the dialogue of my personal agenda and the spirit of the place, (ii) the notion of liminality, and how to respond to binary opposition through approaching the threshold as process and acknowledging the knowledge which resides within this precise

movement, this also inquires approaching architecture as process, as an event ontology, materializing this sense of continuity, of ritual, of agency and intentionality (iii) the body as mediator, where the main method is about getting insight into the immediate context and relation.

The Material and the (Im)material

The main agenda of noetic methods is to overcome the binary opposition and hierarchies of the material and the immaterial context, both the immediate and the remembered experience. To adopt noetic methods, it is to recognize the personal and the situational, both material and immaterial beings, as individually and collectively important and meaningful existences, while embracing and accepting other forms of living such as plants, animal and objects on equal terms.

Liminality and Process

To embrace the noetic method is to embrace transition; to accept the blurred lines, to refuse to categorize, to let experience flow into each other in moments of awareness and consciousness. Thresholds are meant to be infused in order to reveal hidden structures and encourage dialogue, to mediate between different worlds and places. Noetic methods pertain that knowledge is precisely residing in this movement, and that is something that must be experienced with our bodies.

The Body as Mediator

Noetic methods recognize the body as the main mediator of experience, there is a bodily intentionality and agency, simultaneously sensitive and universal, which orients the body to the world. The body, like the material body of architecture, inhabits space and time, it belongs to them and includes them. This interiority measures not just that of body, space and time, but existence as such. Departing from the body then, the immediate context in scale and time, becomes a main feature in the noetic methods; that of the hand harvesting the plant; that of the sweat, vaporing the skin of the body in the steam bath, that of the lungs expanding with air in the meditative garden; that of the body in its resting state, sensing empathy and safety; that of the mouth ingesting the compound, and that of a the perceptual shift during the healing ceremony, the eyes, ears, the nose and sensations, blurring together into a stormy sea of perception; that of the altered bodies in an intimate space, merging in a soup of consciousness; that of the feet walking touching the earth of the ground as they walk out of the ceremony room; that of the burning sensation of the liquor, running down the throat as the patients celebrates surviving the session.

Together, these notions construct the noetic methods in architecture, a methodology that I currently call *Situated design: designing from within.* A title which includes the sense of directionality, embodied agency, the personal, and the material.

BIBLIOGRAPHY

Literature

Barad, Karen. Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning. London: Duke University Press, 2007.

Brabec de Mori, Bernd. "The Magic of Song, The Invention of Tradition and the Structuring of Time among the Shipibo." In *The Botanical Mind: Art, Mysticism and the Cosmic Tree*, edited by Gina Buenfeld and Martin Clark. London: Camden Art Centre, 2020.

Brentano, Franz. Descriptive Psychology. Translate by Benito Mülller. London: Routledge, 2002.

Buenfeld, Gina. "The UR Plant." In *The Botanical Mind: Art, Mysticism and the Cosmic Tree.* edited by Gina Buenfeld and Martin Clark. London: Camden Art Centre, 2020.

Casey, Edward S. The Fate of Place: A Philosophical History. Los Angeles: University of California Press, 1998.

Clark, Martin. "On Being Sessile." In *The Botanical Mind: Art, Mysticism and the Cosmic Tree*, edited by Gina Buenfeld and Martin Clark. London: Camden Art Centre, 2020.

Coccia, Emanuele. The Life of Plants: A Metaphysics of Mixture. 1st edition. New York: Wiley, 2018.

Colomina, Beatriz. X-Ray Architecture. Zürich: Lars Müller Publishers, 2019.

Damasio, Antonio R. Descartes' Error: Emotion, Reason, and the Human Brain. New York: Avon Books, 1995.

Deleuze, Gilles, Essays Critical and Critical. Translated by Daniel W. Smith and Michael A. Greco. London: Verso, 1998.

Eliade, Mircae. Shamanism: Archaic Techniques of Ecstasy. Princeton: Princeton University Press, 1964.

Foucault, Michel. *The Birth of the Clinic: An Archaeology of Medical Perception*, translated by A.M. Sheridan. London: Tavistock Publications Limited, 1973.

Foucault, Michel. Discipline and Punish: The Birth of the Prison. New York: Allen Lane, 1977.

Gorny, Robert Alexander. "The Immunization of Paris: Closing the Triptych of Modern Clichés for the Two-fold Matter of Form-taking." In *Critical and Clinical Cartographies International Conference Proceedings*, edited by Andrej Radman and Stavros Kousoulas. Delft: Architecture Theory Chair in partnership with Jap Sam Books, 2015. Han, Byung-Chul. The Burnout Society. Stanford: Stanford University Press, 2015.

- Husserl, Edmund. *Cartesian Meditations: An Introduction to Phenomenology*, translated by Dorion Cairns. Seventh impression. The Hague: Martinus Nijhoff Pulishers, 1982.
- Husserl, Edmund. *Ideas Pertaining to a Pure Phenomenology and to a Phenomenological Philosophy*. First Book: General Introduction to a Pure Phenomenology, translated by F. Kersten. The Hague: Martinus Nijhoff Pulishers, 1983.
- Joy, Francis. Sámi Shamanism, Cosmology and as Systems of Embedded Knowledge. University of Lapland Faculty of Art and Design. Tureneki: Hansaprint Oy, 2018.

Keating, Kristin. The Performative Corpse: Anatomy Theatres from the Medieval Era to the Virtual Age. Irvine: UC Irvine, 2014.

- Martin, Katharina D. "Ecologies of Corporeal Space." in *Critical and Clinical Cartographies International Conference Proceedings*, edited by Andrej Radman and Stavros Kousoulas. Delft: Architecture Theory Chair in partnership with Jap Sam Books, 2015.
- Maté, Gabor. In the Realm of Hungry Ghosts: Close Encounters with Addiction. Berkeley: North Atlantic Books, 2008.

Merleau-Ponty, Maurice. Phenomenology of Perception. Translated by Colin Smith. London: Routledge, 2002.

Narby, Jeremy. The Cosmic Serpent: DNA and the Origins of Knowledge. London: Weidenfeld & Nicolson, 1998.

Pallasmaa, Juhani. The Eyes of the Skin: Architecture and the Senses. Chichester: John Wiley & Sons Ltd, 2012.

Pinchbeck, Daniel and Rokhlin, Sophia. When Plants Dream: Ayahuasca, Amazonian Shamanism and the Global Psychedelic Renaissance. London: Watkins Media, 2019.

Pollan, Michael. This is Your Mind on Plants. New York: Penguin Books, 2021.

Sheldrake, Merlin. Entangled Life: How Fungi Make Our Worlds, Change Our Minds & Shape Our Futures. New York: Random House, 2020.

Stiegler, Bernard. "Relational Ecology and the Digital Pharmakon." Culture Machine 13, 2012.

Websites

Britannica. "Andreas Vesalius." Last modified Nov 27, 2021. <u>https://www.britannica.com/biography/Andreas-Vesalius</u>.

- Britannica. "Commodity, firmness, and delight: the ultimate synthesis." Theory of Architecture. Last modified February 2, 2021. https://www.britannica.com/topic/architecture/Commodity-firmness-and-delight-the-ultimate-synthesis.
- Britannica. "det moderne gennembrud," (The Breakthrough Movement). Last modified May 19, 2015. https://www.britannica.com/art/det-moderne-gennembrud

Britannica. "Ellen Key." Last modified December 7 2021. https://www.britannica.com/biography/Ellen-Key

Britannica. "Lobotomy." Last modified February 12, 2021. https://www.britannica.com/science/lobotomy.

Britannica. "Psychosurgery." Last modified June 14, 2021. <u>https://www.britannica.com/science/psychosurgery</u>.

Britannica. "War on Drugs." Last modified July 23, 2020. https://www.britannica.com/topic/war-on-drugs.

Beyer, Christian. "Edmund Husserl." *The Stanford Encyclopedia of Philosophy*. Edited by Edward N. Zalta. (Winter 2020 Edition.). https://plato.stanford.edu/archives/win2020/entries/husserl/>https://plato.stanford.edu/entries/husserl/.

Classics and Ancient History. "Sanctuary of Asklepios, Epidaurus." Accessed 2022-01-18.

https://warwick.ac.uk/fac/arts/classics/intranets/students/modules/greekreligion/database/clumcc

Eklund, Anette. "From Sweden to Mexico, indigenous people explain why their languages are disappearing, language extinction is connected to loss of land." *Global Voices.* March 2020. <u>https://globalvoices.org/2020/03/05/from-sweden-to-mexico-indigenous-people-explain-why-their-languages-are-disappearing/</u>

Ellen Key Scholarship Organization. "Ellen Key's Strand." Accessed 2022-01-18. https://www.ellenkey.se/ellen-key/

- Huemer, Wolfgang. "Franz Brentano." *The Stanford Encyclopedia of Philosophy.* edited by Edward N. Zalta. (Spring 2019 Edition). https://plato.stanford.edu/archives/spr2019/entries/brentano/.
- KFF, "The Implications of COVID-19 for Mental Health and Substance Use." February 10, 2021. <u>https://www.kff.org/coronavirus-covid-19/issue-brief/the-implications-of-covid-19-for-mental-health-and-substance-use/</u>.
- Merriam-Webster. "Word History, Hospital." Accessed 2022-01-15. <u>https://www.merriam-webster.com/words-at-play/word-history-hospital-hostel-hotel-hospice</u>.
- Online Etymology Dictionary. "Noesis" and "noema." Accessed 2022-01-15. <u>https://www.etymonline.com/word/noesis</u>, <u>https://www.etymonline.com/word/noematic</u>.

Perseus Digital Library. "Asklepieion." Accessed 2022-01-18.

http://www.perseus.tufts.edu/hopper/artifact?name=Asklepieion%2C+Pergamon&object=Site

- Robinson, Howard. "Dualism." *The Stanford Encyclopedia of Philosophy.* Edited by Edward N. Zalta. (Fall 2020 Edition). https://plato.stanford.edu/archives/fall2020/entries/dualism.
- Seibt, Johanna. "Process Philosophy." *The Stanford Encyclopedia of Philosophy*. Edited by Edward N. Zalta. (Spring 2022 Edition). https://plato.stanford.edu/archives/spr2022/entries/process-philosophy.
- Spiritual Travels. "The Asclepion Healing Center." Accessed 2022-01-17. <u>https://www.spiritualtravels.info/spiritual-sites-around-the-world/asia/holy-sites-in-turkey/pergaumum-in-turkey/the-asklepion-healing-center-at-pergamum/</u>

Swedish National Heritage Board. "Alvastra Monastery." Accessed 2022-01-18.

https://archive.ph/20120907121321/http://www.raa.se/cms/extern/en/places to visit/our historical sites/alvastra monestary.html#s election-443.0-443.293 Swedish Psychiatry Association. "Clinical guidelines." Last modified May 2020. <u>http://www.svenskpsykiatri.se/wp-</u>

- <u>content/uploads/2020/05/SPF-kliniska-riktlinjer-Ätstörningar.pdf</u>
- Van Gulick, Robert. "Consciousness." *The Stanford Encyclopedia of Philosophy.* Edited by Edward N. Zalta. (Winter 2021 ed.). Stanford University. <u>https://plato.stanford.edu/archives/win2021/entries/consciousness</u>.

World Health Organization. "Depression." Last modified September 13, 2021. <u>https://www.who.int/news-room/fact-sheets/detail/depression</u>.

World Health Organization. "Mental Health." Health Topics. Accessed 2021-12-10. <u>https://www.who.int/health-topics/mental-health</u>.

World Health Organization. "Opioid Overdose." August 4, 2021. <u>https://www.who.int/news-room/fact-sheets/detail/opioid-overdose</u>. Frödin, Otto. "Alvastra Kloster." Ödeshög Hembygdsbok. Accessed 2022-01-18.

https://www.yumpu.com/sv/document/read/20544102/alvastra-kloster-odeshogs-hembygdsbok

Journal Articles

- Arcelus, Jon et al. "Mortality rates in patients with anorexia nervosa and other eating disorders. A meta-analysis of 36 studies." *Archives of general psychiatry* 68,7 (2011): 724-31. https://doi.org/10.1001/archgenpsychiatry.2011.74
- Davis, Alan K. et al. "Effects of Psilocybin-Assisted Therapy on Major Depressive Disorder: A Randomized Clinical Trial." JAMA Psychiatry 78, no. 5 (November 2021): 481-489, doi:10.1001/jamapsychiatry.2020.3285.
- Diament, Mauricio, Ramos Gomes, Bruno, and Fernando Tófoli, Luis. "Ayahuasca and Psychotherapy: Beyond Integration" in *Ayahuasca Healing and Science*, Springer Nature Switzerland. 2021. URL: <u>https://doi.org/10.1007/978-3-030-55688-4_4</u>.
- Gerber, Konstantin et al. "Ethical Concerns about Psilocybin Intellectual Property," ACS Pharmacology & Translational Science 4. No 2. 2021.
- Hillhouse, Todd M. and Porter, Joseph H. "A brief history of the development of antidepressant drugs: from monoamines to glutamate." *Experimental and clinical psychopharmacology* 23, no 1 (2015): 1-21, doi:10.1037/a0038550.
- Johnson, Matthew. "Psilocybin Treatment of Depression and Tobacco Addiction." *John Hopkins Medicine Department of Psychiatry and Behavioural Sciences.* (August 2019). <u>https://mdpsych.org/wp-content/uploads/2019/08/Psilocybin-Treatment-of-Depression.pdf</u>
- Melfi, Milena et al. "The Archaeology of the Asclepieum of Pergamum." In *In Praise of Asclepius: Aelius Aristides, Selected Prose Hymns.* edited by Heinz-Günther Nesselrath, Donald A. Russell, and Michael Trapp. Mohr Siebeck GmbH and Co. KG, 2016. http://www.jstor.org/stable/j.ctv9b2wcx.9.
- Mücke, Marion and Schnalke, Thomas. "Anatomical theatre." In *European History Online (EGO)*, the Leibniz Institute of European History (IEG). Last modified February 19, 2021. <u>http://www.ieg-ego.eu/mueckem-schnalket-2018-en</u>.
- Nybakken, Oscar E. "The Moral Basis of Hospitium Privatum." The Classical Journal Vol. 41, No. 6 (1946): 248-253.
- Palhano-Fontes, Fernanda et al. "Rapid Antidepressant Effects of the Psychedelic Ayahuasca in Treatment-Resistant Depression: A Randomized Placebo-Controlled Trial." *Psychological Medicine* 49, no. 4 (2019): 655–63, doi:10.1017/S0033291718001356.
- Renelli, Marika et al. "An exploratory study of experiences with conventional eating disorder treatment and ceremonial ayahuasca for the healing of eating disorders." *Eat Weight Disord* 25, no. 2 (April 2020):437-444. doi: 10.1007/s40519-018-0619-6.
- Retief, Francois P. and Cilliers, Louise. "The Evolution of Hospitals from Antiquity to the Renaissance." In *Acta Theologica* vol 26, no. 2 (2010): 213-232, 216.
- Weiss, B., Miller, J.D., Carter, N.T. et al. "Examining changes in personality following shamanic ceremonial use of ayahuasca." *Sci Rep* 11, 6653 (2021). https://doi.org/10.1038/s41598-021-84746-0

Magazine Articles

- Lovato, Roberto. "The Gentrification of Consciousness." Alta. January 4, 2022.
- https://www.altaonline.com/dispatches/a38326035/psychedelic-drugs-gentrification-roberto-lovato/.
- Maté, Gabor. "The profound power of an Amazonian plant and the respect it demands." *The Globe and Mail*. December 21, 2015. https://www.theglobeandmail.com/opinion/the-profound-power-of-an-amazonian-plant-and-the-respect-itdemands/article27895775/.
- Zeiba, Drew. "Architecture and illness: Beatriz Colomina on tuberculosis, modernism and Covid-19," PIN-UP 28. Spring
- Summer 2020. https://pinupmagazine.org/articles/interview-beatriz-colomina-x-ray-architecture-drew-zeiba.

Interviews

Gomes, Mario. Con Ciencia Indigena. Virtual Zoom-interview by Ragna Nordström. October 14, 2021.

Gomes, Mario. Con Ciencia Indigena. Virtual Zoom-interview by Ragna Nordström. December 28, 2021.

Knoop, Simon. Living Gaia. Virtual Zoom-Interview by Ragna Nordström. December 3, 2021.