

sun bed

how to believe the sun is there when it is not warm on your skin

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ABSTRACT

***sun bed* is an installation and performance using methods of worlding, relational networking and poetic translation to imagine and make believe a parallel world of ours with one difference: the sun is missing.**

The work describes a phantastic alternative version of our existence in which culture is organised in a heliocentric way, nature has to adapt to mere weeks of sunlight and artificial light becomes not only essential to survive daily life but also to evoke the sun for ritualistic purposes. In the center of the narration is a modified solarium: the sun bed. With the bed as a sacralised object a rite of passage is performed.

The work draws from theory of worldbuilding, theory of absence and desire as well as religious theory, specifically the distinction between the sacred and profane. It uses rule sets as a ludic artistic approach, dithering as a way of blurring and performance to embody transition.

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1. BEFORE SUNRISE

Ooh, it gets dark, it gets lonely! On the other side from you.

(Kate Bush from Wuthering Heights)

It is still dark, but there is an idea of light. I can't tell if the sky really is slightly more light blue where it touches the horizon or if it's just in my head but it doesn't matter. I know the sun will rise soon enough.

a. introduction

Now that we have come to the end, let me open up my notes app for you, nested in the sentient stone that we taught to create associations which I call my phone. I touched it every day these days. To be exact, I touched the outer part of it, which is supposed to keep it safe. But recently I bought a new shell and the color of the plastic went from black to see-through. Now everyone can see what I hold close. It has become quite a holy object resting in my hand, being touched gently every day.

On this phone I have collected landscapes, stories and movements, real and fictional. I've collected them in screenshots and in written words strung together in a state closer to sleep than wake.

That is how I work: I collect what feels like it belongs together.

One day I see a solarium on the street parked like a car next to the sidewalk, as if spawned from a parallel universe through a temporary glitch in space-time. It feels like stumbling onto a relic of sometime else. And I think: what if it was not only from sometime but somewhere else? From here, but not exactly here. Like here, but slightly different which makes everything shift.

b. creating

“I want to say something to you, but aidōs prevents me...”

(Sappho from fragment 137)

From there/then I start to collect and fill up my glass. It feels like storing the fragments somewhere in your body for later, to pull them out from hidden storage between your ribs when the moment comes. I call this the dreaming state. What comes after is the arrangement. When I put the fragments together they make up a thing. This is what I would like to tell, but cannot say. So I find a method to show the thing to you in a way that is still containing everything but you need to come close to actually know.

For this work I was intrigued by the method of dithering. Dithering is being used both in the processing of audio signals as well as images. With images usually dithering is used when they are represented in a lower bit depth than they were originally captured in, leading to harsh lines between shades and colors. Dithering then gives the illusion of a smoother transition. (vgl. api.video, 2025)

In audio processing dithering is *“the process of adding noise to a signal, in an effort to mask and randomize higher-order harmonics, and in turn, make quantization distortion less perceivable.”* It is used when a signal is being quantized, which usually happens due to limitations like being restricted to using a lower bit depth. The process of dithering is then introduced to smooth out the distortion by adding noise. Certain unwanted patterns or harmonics then become less noticeable because they are being randomized. (vgl. Sage Audio, 2025)

I find this very interesting and thought of how this method could be applied in different ways that are less technical and more metaphorical. In art one often abstracts their thoughts and ideas to make them more powerful. This practice can be seen as equal to quantizing. But what may happen is that the story becomes boring, too obvious or even arrogant in its oversimplification and decisiveness in knowing. Dithering could then be seen as a way to blur the edges by introducing noise and misdirecting without taking away or hiding something. It gives the illusion of two edges meeting and intertwining to a point where they blur together so

gently that the edges disappear. It creates a cloud of possibility that contains everything it needs to rain and be deciphered, as soon as the wind blows it to its higher temperature destination.

I also believe that some edges are too harsh to keep them and too dangerous to not soften them. Even more so I believe that the most interesting things are happening between two edges hence you should give them some more attention. In an alphabet every letter is an edge of a language, a halt to help make up meaning. In a body the edges that meet grant us freedom of movement like our limbs do or they are edges that protect us, like eyelids are trying to. (vgl. Carson, 1986)

Aidōs dwells upon the eyelids of sensitive people as does hybris upon the insensitive.

(Stob. Flor, 4.230M, 1884)

Aidōs is a kind of shame felt that should prevent one from doing wrong. Carson interprets it as “*a sort of voltage of decorum discharged between two people approaching one another for the crisis of human contact, an instinctive and mutual sensitivity to the boundary between them.*” (Carson, 1986, p. 20f) How fitting that it dwells upon the eyelids, like a guardian, as if resting in-between our softest edges.

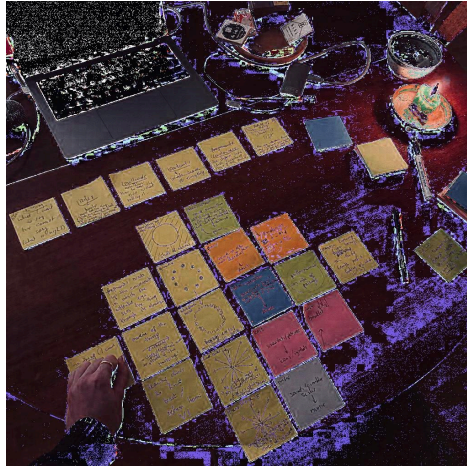
So I think we can conclude that while the most interesting things happen where edges meet, there is also the danger of upsetting dear Aidōs when we stare at her and as a result being punished for our hubris. It would be sad to never look, but let's maybe dither the spaces in-between, to make the edges less sharp so we can spend a bit more time there before she pulls our eyelids shut.

c. dreaming

For dithering there first needs to be a source material. This is where the collection from the dreaming state comes into play. I'm taking everything that I have collected to put it into relation to myself and one another. I arrange and find connections. The result of this relational networking then becomes material to use for dithering.

Especially for worldbuilding where I want to create an environment that feels very full with details I find it

really helpful to access my personal storage of “samples” to bring something in as a basis that already has character. The material then becomes “dithered” meaning I light a candle and sit in front of a bunch of post-its for some hours trying to map my source material to the steps of dithering I have determined before.



making a map of my samples and methods

Now, I know, but try to keep following me:

In this way writings, poems, diary entries become stories and narratives by looking at everything but the thing. It creates a shell of absence, that indicates something is missing and what shape the thing we are looking for might be. The next step is quantising: Notes about dreams that appear after listening to the recordings of solar observers while sleeping are being made into important places and landmarks of sun world. Then I add random noise by listening to my playlist and through that finding my movements to use in the performance. At this point I could stop but I try to give direction by vectorising each fuzzy, quantized particle and it so happens that together they form a window that lets me jump through it (window etymologically comes from *wind eye*, I think...). Then I only need to rotate 90 degrees what I find there and delete all boundaries to be able to stack and spin it a couple times around and around multiple axes until we are left with the dithered thing. Got it? It felt right at the time when I played with it. We are still in the *dreaming* chapter after all and maybe that has a different logic in itself. Anyways, in the end I had something resembling a firework. More about that later.

2. SUNRISE

Worldbuilding is an active, ontological process of imagination. While worldbuilding is closer to being a top-down process coming from one source, artists like Alice Bucknell like to use the term “worlding” to describe their slightly differing approach to imaginative world-making. It is an approach that considers worlding a practice of creating a living system that is inhabited by actors with their own agency, leading to the world shaping and changing in itself. (vgl. CURA, 2023) Bucknell states the difference in methods as follows:

“Worldbuilding stems from a long history of creating narrative environments in which to tell a story. It’s closely associated with speculative fiction and its sub-genres: sci-fi, cli-fi, horror, fantasy, solarpunk, etc. These are typically closed systems: created top-down, often by a singular author, and they don’t do so well with change. As for worlding, I take a page from Donna Haraway as well as contemporary artists like Ian Cheng who see the process as much more collaborative, non-hierarchical, and open-ended. It’s less about creating any singular “one” world and more about an agile system of nested worlds that is constantly redesigning itself. Worlding often has ecological undertones, as it often deals with a multispecies cohort of co-creators, machine intelligence included. It’s also important to note that worlding as a tactic is increasingly enabled by technological advances such as real-time rendering processes and ongoing co-evolutions with AI.”

(Alice Bucknell for CURA, 2023)

Author of the book “Building Imaginary Worlds” Mark J.P. Wolf describes his approach as something that “departs from prior approaches to the topic that focused mainly on narrative, medium, or genre, and instead considers imaginary worlds as dynamic entities in and of themselves.” (Wolf, 2012, introductory page) This falls in line with the route Bucknell is taking and what I would like to adopt for my own work. For my own artistic practice this means I am only giving artefacts that could give the viewer an idea of the shape this world is taking up at this current moment, but it is up to the audience to interpolate the inbetweens and to extrapolate what it could grow into.

a. conceptual structures: out in the light

In this chapter I will give some insight into the particularities of the world I am trying to set into motion. I am hoping that it is just an initial momentum that I am giving and that sun world will continue on its own, as it feels to me already like a thing I am not controlling but more like a fire I sit in front of as its devoted keeper, playing with it and stoking it from time to time.

i. sun world

The world that we get a glimpse of is essentially in parallel to ours, with one significant difference: the earth is slightly more tilted, making it so that there is only sunlight for 99 hours a year. This leads to a society organized in a heliocentric way, built around the absence of the sun. Through its absence it becomes holy, ultimately leading to the believers having distinct rituals for these extreme differences between light and darkness, one of which is the ritual for transition that is performed during the annual sunrise.

ii. sun book

On the first day of the third month after the Israelites left Egypt—on that very day—they came to the Desert of Sinai. After they set out from Rephidim, they entered the Desert of Sinai, and Israel camped there in the desert in front of the mountain.

(Exodus 19:1-2)

The sun book sets the center from which everything unfolds. It contains information about sun world, its specifics and culture, nature and beliefs. For the artwork it takes the position of origin in a sense that it is said to be the only thing that is actually from sun world and somehow made its way into our world:

“I was at the train station close to my home as the only person on the platform since I was not waiting for a train, I was just passing through on a walk. There is this platform that I like to walk on because it’s next to a cemetery and I enjoy how restless life and eternal stillness meet there. Suddenly two trains approached, from each side, they passed me by, trapping me in the middle between them. There was a strong gush of wind, like

a storm pushing from everywhere and I heard this voice in my head saying 'Don't worry if the wind blows from both sides.' It lasted for only a glimpse of time but also forever and was so loud. Suddenly it was silent again, I was alone on the platform. I looked to see where I was, the sun blinded me. Something caught my eye being blown by the wind, I caught it in my hands, it was a collection of texts and strange notes about the sun. This experience felt so otherworldly that I believe I have received it indeed from another world. I studied the contents of the texts and started to pray, live by the 99 rules and build this sun bed to perform the rite of transition described in the book."

(origin myth of sun book, rima lenis)

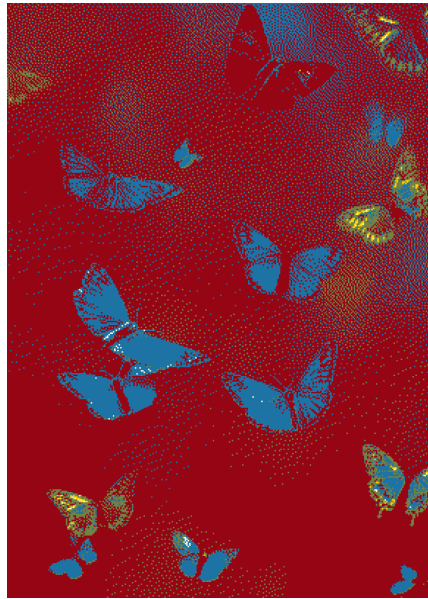
iii. nature

"And the highest enjoyment of timelessness - in a landscape selected at random - is when I stand among rare butterflies and their food plants. This is ecstasy, and behind the ecstasy is something else, which is hard to explain. It is like a momentary vacuum into which rushes all that I love. A sense of oneness with sun and stone."

(Vladimir Nabokov from Speak, Memory)

Since the sun is missing, the flora and fauna also are affected. Plants cannot perform photosynthesis and must either resort to forming symbiosis with fungi that are not dependent on sunlight or find entirely different ways of producing energy. This also leads to plant life devoid of color, since it is not needed in darkness. Bioluminescence on the other hand is found in almost every living thing as a way of communicating, locating and attracting. Even the fauna is dependent on using bioluminescence to stand out in the dark and their eyes have adapted to seeing in this different way.

In the short period of light, meaning weeks of twilight and then the 99 hours of direct light, a massive outburst of life and color is taking place. Species that are unable to adapt to living in the dark have perfected their hibernation state so as to come back into life, as soon as the dark starts to yield. Notably butterflies are celebrated as they emerge from their cocoons in the short period of light, bringing a rare appearance of bright color with them. Their short life span correlates with that of the sun, making them its earthly pendant of ephemeral beauty.



the spectacle lasts for just a few hours

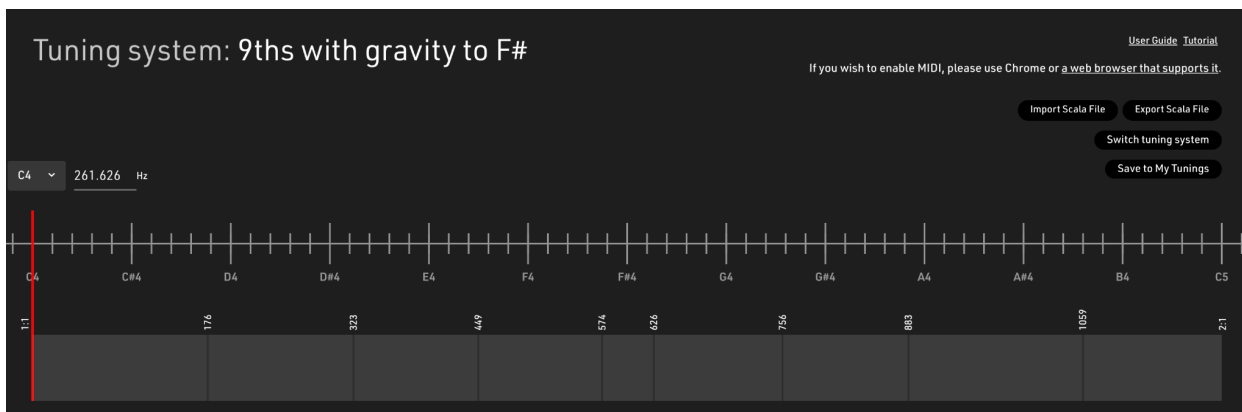
iv. sound

“There is a bird and a stone in your body. Your job is not to kill the bird with the stone.”

(Victoria Chang from Love Letters)

For sound I am trying to play with our expectation of what music is. I am interested in bending the rigid 12-tone equal temperament and introducing a musical scale that would fit sun world. For this I am using *Leimma* which is a “browser-based tool for exploring, creating, hearing, and playing microtonal tuning systems” (Isartum, 2026) created by Khyam Allami and introduced to me by Seba Kayan. The tool allows to create custom scales that can then be imported into one’s own DAW.

Additionally I am using field recordings from walks with a flashlight in the forest, to add a sense of a bigger corpus of world that the sound can resonate in. Specifically the recordings are from the night of new year’s eve in our world, which has its very own soundscape because of it being set in the coldest and darkest time in the year but very noteworthy of course also because of the explosions of fireworks.



tuning system made using Leimma: 9ths with gravity to F#

v. artificial light

[...] the panel sends an electric jolt to the shell which ignites the lift charge to create an explosion. This explosion launches the shell into the air and lights the shell's fuse. When the lit fuse reaches the stars in the shell, they explode into the air in the designed shape. The heat from these explosions reacts with the chemicals mixed within each star [...]

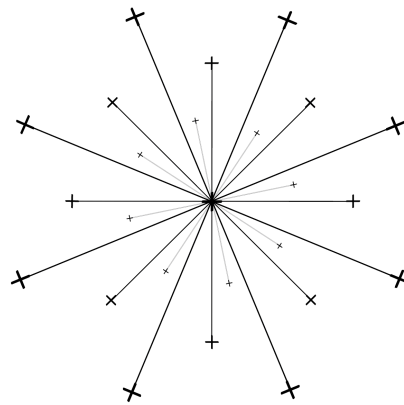
(Library of Congress, 2025)

The recordings taken at New Year' Eve fit with the relevance of explosives used for festivities and in general the use of artificial light in sun world. Since it is dark most of the time artificial lights have a high importance and are used in countless designs and various ways, but three are most interesting to mention:

While flashlights are an absolute necessity for life in a dark world they are also a tool for exploration. Their circular beam of light is cutting through the darkness, again as a sharp edge separating what can be experienced in the hard light versus what stays in the dark and can only be speculated about. This sensation is of course something that is very much known by an audience that plays, because it is a mechanic widely popular in videogames. Using flashlights limits the way one can experience their surroundings and putting the mechanic directly into one's hands makes it a tool that is held by one's biggest embodiment of agency in gamespace and (sun) world.

The sun bed on the other hand is being used not in a practical way as a means solely for illumination but in a sacral way. It becomes a sacred object that rituals center around. Not only is it used to give warmth, comfort and the closest thing to sunlight one can have during the dark times, but also it has a spiritual importance as it becomes a medium through which to receive the light of sun. It is used for ceremonies throughout the year, most notably for the rite of transition known as the dance of nine lights.

Another special artificial source of light are fireworks. Strictly speaking they don't fall into the category of light in the sense that their main application does not lie in the illumination of a space. They are much more a medium for invocation in the same way magic spells are meant to manifest. Since fireworks resemble the sun in its dithered state they are lighted to anticipate the rise of the sun just before the period of 99 hours starts. Their explosions announce the upcoming days of light and symbolise the bidding to accept the annual renewal of the pact made with the sun to come back once again.



*** (step 6 of dithering)

vi. what's missing

"To know is one thing and to know for certain that we know is another."

(James, 2022, p.33)

We can never know for certain, we have to believe everything to an extent. Sometimes we have to stretch further to close the gap between our idea of truth and what we can perceive but even in empirical research there is always a sliver of uncertainty that can only be overcome with belief.

When living in a world that is dark and missing the sun all year except for these 99 hours, I know, that the sun will come back like it did every year and that it will rise again just as it has done forever but I don't know for certain in a sense that I have almost forgotten how it feels warm on my skin. And I find it hard to believe, even if I am presented with the evidence. This last sliver of uncertainty, the 0,1% that probability will not do me the favour of ruling out, is standing between me and knowing for certain that the sun will warm my skin again.

In dithering we create an illusion that helps us believe and by that to overcome this limitation of knowing for certain. If we really want to, we can look closer and understand the hoax but if the will is there then it is an easy feat for us to make distance and uphold this suspension of disbelief, even when we are aware of the gap.

In a way you could say to know is to agree with the presented facts enough to function, but to know for certain is to cross the last gap of uncertainty with believing. And if I am living most of my life in darkness and missing the sun, yearning for a steady, practically endless warmth that stays, then this creates the conditions to find the will to believe: It will all come back to me.

b. technical structures: hidden in shadows

The technical and scenographic structures are as follows:

i. sound setup

The sound is being created in Ableton Live with the option to modulate in real-time using a MIDI controller that is mapped to certain parameters of effects inside of the DAW. The physical interface is

customised using 3D printing and becomes part of the installation. The acoustic part is recorded using a standard microphone that sends into the DAW. The electronic part is partly pre-composed and partly generated live. The signals are sent to the solarium using a Max for Live patch.

ii. solarium modifications

The solarium was taken apart to deinstall the original lamps on the upper part. This makes space for the custom made MIDI-triggered LED tubes that are installed instead. They receive the MIDI signal from Ableton Live and react accordingly, for example by showing flashing or wandering pixels LEDs over time. The signals are received by one receiver, a microcontroller that acts as “the brain” that gives commands to the receivers installed in each of the light tubes. The tubes are made of satinated acrylic glass with 3D printed cases that contain the electronics. The power supply is hidden in the case of the sun bed.

iii. set & setting

The scene is set in a circular shape. The sun bed is at its center, with beddings on top of it, while the audience is seated around it. The location is a subway arch that itself has a shape that mimics the inside of a solarium. The scene is enclosed by the soundsystem with the speakers being aligned in a back/front setup. The whole scenery is white and devoid of color. The smell is sweet.

3. ZENITH

Quisiera yo renegar. De este mundo por entero. Volver de nuevo a habitar.

Mare de mi corazón. Por ver si en un mundo nuevo. Encontraba más verdad.

(La Niña de los Peines from Quisiera Yo Renegar)

When the sun is right above there are no shadows and no place to hide anymore. In a transition this is the turning point. A rite of passage, meaning a ceremony for transition, is the process that enables a person to move from one defined position to the next equally defined one. Often they correlate with celestial events and usually there are not just one but multiple stages to transition through with the rituals themselves having returning characteristics but the difference being made inside the one who is passing through. One is to cross boundaries, be modified and come out changed afterwards. (vgl. van Gennep, 1960) To undergo these changes, the one to change has to leave the profane and enter the sacred realm:

“Thus the ‘magic circles‘ pivot, shifting as a person moves from one place in society to another. The categories and concepts which embody them operate in such a way that whoever passes through the various positions of a lifetime one day sees the sacred where before he has seen the profane, or vice versa. Such changes of condition do not occur without disturbing the life of society and the individual, and it is the function of rites of passage to reduce their harmful effects. That such changes are regarded as real and important is demonstrated by the recurrence of rites, in important ceremonies among widely differing peoples, enacting death in one condition and resurrection in another.”

(van Gennep, 1960, p.12f)

To enter the sacred one must separate themselves from the profane. They must leave, even enact death, vanish from sight. For this reason people veil their heads when worshipping, to break the contact of sight and become part of the sacred world. (vgl. van Gennep, 1960) If seeing is already a form of contact, like anyone who has ever looked into the other’s eyes knows, then maybe one should not look directly into the sun if it is sacred. Stare into the sun with your eyes closed. Or wear sunglasses.

But where does one go when they disappear themselves from the profane? And where to find it? In “The Sacred and Profane” the religious historian Mircea Eliade describes the concept of hierophany that literally translates to “hieros” = ἱερός, 'sacred, holy' and “phany” = φαίνειν, 'to reveal, to bring to light' (Wikipedia, 2026):

“Man becomes aware of the sacred because it manifests itself, shows itself, as something wholly different from the profane. To designate the act of manifestation of the sacred, we have proposed the term hierophany. It is a

fitting term, because it does not imply anything further; it expresses no more than is implicit in its etymological content, i.e., that something sacred shows itself to us.”

(Eliade, p.11)

He explains that there is a paradox inherently engraved in the hierophany. That by the sacred being manifested in any object it becomes something else while remaining itself, since it's still embedded in its initial surroundings. From the point of view of the profane it seems as if nothing has changed. *“But for those to whom a stone reveals itself as sacred, its immediate reality is transmuted into a supernatural reality. In other words, for those who have a religious experience all nature is capable of revealing itself as cosmic sacrality.”*

(Eliade, p.12) He later describes it as a “fixed point”: *“In the homogeneous and infinite expanse, in which no point of reference is possible and hence no orientation can be established, the hierophany reveals an absolute fixed point, a center.”* (Eliade, p. 21).



“fixed point”: still needle of the rotating compass in your hand (x, y, z)

a. leaving

“When it's time, no one runs away. We go all the way to the altar, to the butcher's, we can't help ourselves, we go all the way to where we don't want to go, it's irresistible. Pushed by desire and terror mixed.”

(Cixous from Stigmata)

To leave the profane one must separate themselves from it as the sacred is “*wholly different from the profane.*” It might be different, but it is not somewhere else. I actually do believe the sacred lies very much in the profane. I believe an aquarium, a bathtub, even a solarium will become a sacred space if you allow yourself to give it an almost funny amount of attention until a hierophany may occur.

Attention, taken to its highest degree, is the same thing as prayer. It presupposes faith and love. Absolutely unmixed attention is prayer. If we turn our minds towards the good, it is impossible that little by little the whole soul will not be attracted thereto in spite of itself.

(Weil, 1947, p. 117)

In the first third of the rite I am separating myself from the profane, becoming unrecognisable to what has held me so far. I am trying to sharpen my attention, preparing to access the sacred inside the profane. For this I am hollowing out the profane, like removing the original lamps of the sun bed, and attempting to collapse it until it's lost all its familiar, domestic qualities. I am devoting myself to the process, turning to singing and movement as the highest form of attention, to enter the liminal stage and go further from there.

b. ***

I am at the living and soft centre. Still.

(Clarice Lispector from *Água Viva*, tr. Stefan Tobler)

If I could describe it beforehand I wouldn't need to do it. If I could describe it afterwards I didn't do it right.

c. returning

“[...] I don't know, but there was softness and no blurring.”

(Jeanette Winterson from Lighthousekeeping)

In western music theory there is a clear answer for how to make something sound finished. A “perfect cadence” is a V-I cadence. In C Major this would mean going from the G (fifth chord) to the C (first chord). (Music Theory Academy, 2026) This resolution is often considered as “coming home”.

I am using the monochord to help me find the way back home. First invented in Greece circa 500BC, it was a musical instrument but also a scientific tool used to explain music theory. Apparently Pythagoras discovered the connection between string lengths and music intervals and was led to believe that the laws of the universe could be understood through the lens of mathematical ratios, as seen in music. Later on Kepler even made connections to astronomy and saw correlations in the movement of celestial objects and musical harmonies. (Whipple Museum of the History of Science, 2026)

The monochord is usually made up of just one singular string stretched over a resonating body. The one that I am using is meant as a therapeutic tool and is to be played with the instrument touching someone's body for them to feel the vibration. It has multiple rows of strings spanned upon it, that are all tuned to the same note: In the end it is all coming back to C.

4. SUNSET

“This world is just a little place, just the red in the sky, before the sun rises, so let us keep fast hold of hands, that when the birds begin, none of us be missing.”

(Emily Dickinson in a letter to Louise & Frances Norcross)

I always thought through all and everything that the only thing that was really important to hold onto was your hand. So thank you for holding mine.

Glossary

dance of nine lights

the rite of transition performed at the annual sunrise to mark a transition

sun bed

the ritual object to perform the rite of transition

oneiroarchaeology

the method of finding answers in your dreamscapes

sun observer

technology to gather data from the sun in audiovisual format

solarplexus

part of the vegetative nervous system between guts and lungs said to be home to the inner sun in dark times

99 hours of light

the period of time when the sun is visible embedded in several weeks of twilight before and afterwards

chin to chin

popular dance during festivities

multi eclipse

origin myth of the sun world

sacred refractions

caustics as seen by the sunlight shining through wind chimes of glass hung in the windows

winds between trains

how the sun book was first gifted

the burn

at the end of 99 hours of sunlight when plants start to die from the intense heat of the sun

MOM

endearing term used to describe the sun

a sign of storms

rough weathers that announce the transition

sun prayer

prayer that is used to ask for blessing from the sun

sacred supernova

the end of the sun said to be the big reunion between all living and its mother

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