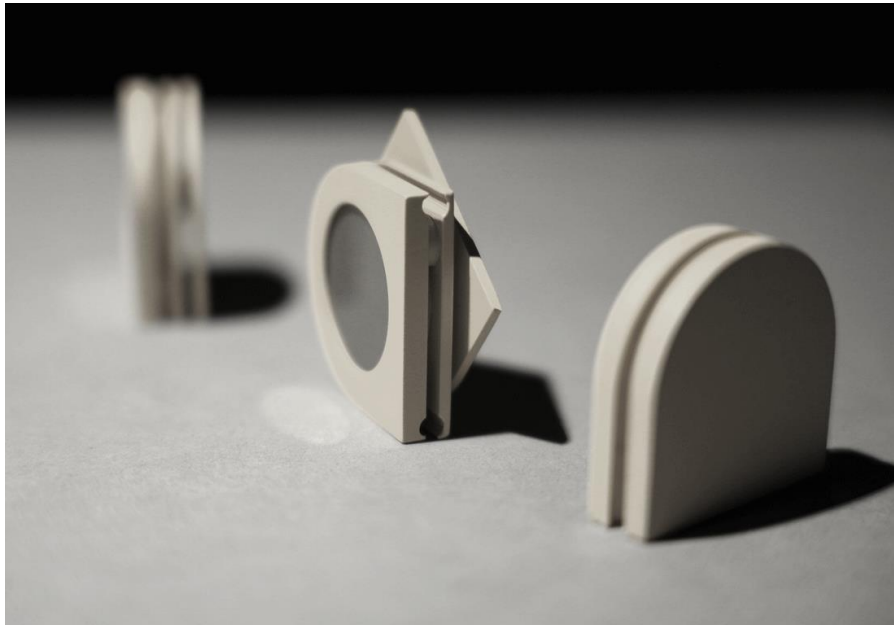


# STATE OF DAY

A design proposal for an alternative watch.



Design Ecologies  
Spring 2024 course WHAT  
Student: Martin Karlsson  
Teacher: Looe Broms

**KONSTFACK**  
*University of Arts, Crafts and Design*



## **Abstract**

The project explores an alternative timekeeping device that without a digital screen and use of electrical light displays five distinct shades representing each stage of light a day consists of. The thesis presents a design proposal for an alternative watch that through unconventional methods uses natural light to gradually reveal the passage of time. Furthermore, design research includes observations of and interactions with other-than humans (such as the Calathea plant and a Spiral Grained Tree) and their relation to time and light. Underlying the two main themes is the topic of mental health and stress-related illness that has rapidly increased in Sweden over the past few years.

**Keywords:** Alternative watch design, Time, Natural light cycles, Mental health, Degrowth.

## Table of Content

1. Introduction .....	1
1.2 Background .....	1
1.3 Terminology .....	3
1.4 Purpose and Research Question .....	4
1.5 Methods .....	4
2. State of Day .....	6
2.1 Observations of other-than human .....	6
2.1.1 The sky – Stages of day (nuances, pulse, rhythm) .....	6
2.1.2 A tree – Spiral grain tree, (rotation, stress, time) .....	7
2.1.3 A plant – Calathea plant (darkness, rest, energy) .....	7
2.1.4 A flower – Flower of the Day (light, growth).....	8
2.2 Survey outcome .....	9
2.3 Technology .....	10
2.3.1 Polarizing film.....	10
2.3.2 Programming rotation using Arduino code .....	11
2.3.3 GPS – DD coordinates (59.292165498 17.991496034 - Telefonplan).....	12
2.3.4 Traditional mechanical clockwork.....	12
2.4 Materials .....	13
2.4.1 PLA.....	13
2.4.2 Natural rubber .....	13
2.5 Form .....	14
2.5.1 A circle and a square .....	14
2.5.2 Årsta holmar (Bridging projects).....	14
2.6 Color.....	15
2.6.1 Evening Walk .....	15
2.6.2 Stockholm green .....	15
2.7 Design proposal – State of Day watch .....	16
3. Conclusion and Exhibition reflections .....	17
3.1 Conclusion.....	17
3.2 Exhibition reflection .....	19
4. References.....	21

# 1. Introduction

## 1.2 Background

*It is when we become aware of before and after that we speak of time. For this is what time is: a number for motion with respect to before and after.*<sup>1</sup>

Time and the tools to measure it are human-made constructions. The system of timekeeping is affecting us, and others. Historically, nature governed the tempo of time; the day started when the sun rose and ended when it set, and darkness fell.<sup>2</sup> This thesis presents a design proposal that re-introduces our inner time, as it always has been; varied and site-specific, or to quote Johan Eklöf in *The Darkness Manifesto*: “Light and darkness have governed life for billions of years with an ancient and tactful rhythm.”<sup>3</sup>

Humans need to measure and control time has evolved over thousands of years, starting with sundials. Being a human construction, it was a tool used to calculate time. A later example that also predicts time is the perpetual calendar, an eternal calendar invented by the English watchmaker Thomas Mudge in 1762 (Figure I.1).

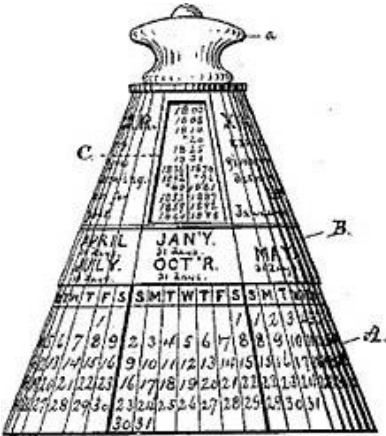


Figure I.1 Illustration of Perpetual calendar from 1881.

<sup>1</sup> Kim Salomon, *Tiden*, Göteborg: Makadam förlag, 2017, p.181.

<sup>2</sup> Leonardo Caffo, *The Maize Magazine*, “The currency of time”, 2020.

<sup>3</sup> Johan Eklöf, *The Darkness Manifesto*, Rosersberg: Nordiska Bokgrossisten, 2023, p.240.

In 1904, the first timeclock (Figure 1.2) in Sweden was introduced to the workers at Nordiska Kompaniet's workshop in Nyköping, to control and monitor their entry and exit from a working day.



Figure 1.2 From the exhibition *NK:s Furnitures*, Sörmlands museum, December 2023. Photo by the author.

The development of industrialism and electrical light is the basis of today's modern society with artificial light, where the distinction between day and night has been blurred which has resulted in the loss of long-time connection to natural cycles.<sup>4</sup>

Swedish Public Health Authorities of today stress the connection between personal health and access to natural light, as well as having a balanced relationship to time. Shorter daylight exposure has been shown to correlate with sleeping disorders and depression.<sup>5</sup> This is an issue especially in the winter season particularly in northern parts of Sweden where there are periods with very little or no light, which can lead to Seasonal Associated Depression (S.A.D).<sup>6</sup> Meanwhile, Sweden is also unique of having Burnout Syndrome as a diagnosis, although the symptoms (which are similar to depression) are found in other countries around the world. Burnout Syndrome is caused by long time stress without the necessary recovery.<sup>7</sup> Sick leave related to burnout and other stress-related illnesses has increased in Sweden over the last years.<sup>8</sup>

In a recent article in *Dagens Nyheter* scientists for the first time has proven that human activity on earth has slowed down the rotation of earth and therefore affected the length of day.<sup>9</sup>

---

<sup>4</sup> Eklöf, 2017, p.18.

<sup>5</sup> Agneta Falk Filipson, "Light and Health", Swedish Public Health Authorities, 2017, p.24.

<sup>6</sup> Filipson, 2017, p.31.

<sup>7</sup> <https://www.stressmottagningen.se>, 3 Mars, 2024.

<sup>8</sup> <https://www.forsakringskassan.se>, 7 Mars, 2022.

<sup>9</sup> Simon Campanello, *Dagens Nyheter*, "Klimatförändringarna påverkar dygnets längd", April 7, 2024.



Figure 1.3 Swedes facing the sun while waiting for the train at Telefonplan, Stockholm, March 2024. Photo by the author.

### 1.3 Terminology

A central term which will be continuously used in this thesis is *state* which means the condition that someone or something is in at a specific time. The project's title is *State of Day*, which refers to the various stages a day consists of. According to SMHI (Swedish Meteorological and Hydrological Institute) a day consists of five distinct stages.<sup>10</sup> Throughout this thesis, these stages will be called *states*, which is a central term. The five *states* of a day are the following; Day, Civil Twilight, Nautical Twilight, Astronomical Twilight, and Night. Day is the lightest shade of them (Figure 1.4). The thesis focuses on *natural light* and will not consider aspects of electrical light. *Natural light* is light that comes from a natural source of light that occurs without the involvement of humans, such as for example, the sun, that produces daylight. According to Swedish Health Authorities daylight is valued higher than electric light, creates greater connection with nature and reduces stress.<sup>11</sup> Another term in the thesis is the concept of *Degrowth* which in short is a strategy to reduce material and energy consumption and a way to design for production that limits nonrenewable-energy use.<sup>12</sup>

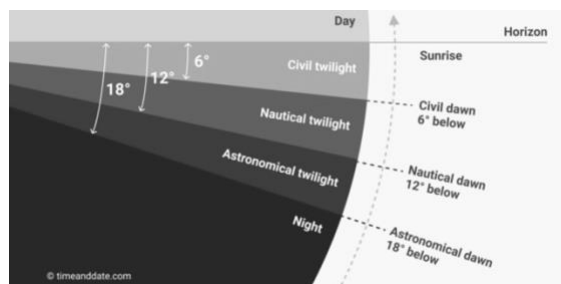


Figure 1.4 The five stages of day.

<sup>10</sup> <https://www.smhi.se>, January 10, 2024.

<sup>11</sup> Filipson, 2017, p.62.

<sup>12</sup> Matthew Wozniak, *Design After Capitalism*, Cambridge, MA: MIT Press, 2022, p.262.

## 1.4 Purpose and Research Question

The thesis aims to explore an alternative timekeeping device, or a watch, with a degrowth mindset. In contrast to the dominating numerated timekeeping systems of today, it aims to re-connect its user to their natural inner time through linking them to the natural cycles in their own environment. It is more in the direction of conceptual design and for the purpose of debate than to create a commercial product for production.

The thesis explores the research questions:

- Is it possible for a mechanically constructed device to tell time by displaying the users local natural light conditions through SMHL:s five light stages of a day?
- How can a degrowth mindset inform such a timekeeping device?
- Is it possible to strengthen humans' relationship to natural time (and thereby promote sustainability and mental well-being / slowing down) by wearing a “watch” that is in tune with one's local natural light cycles?

Light pollution from electric light is one of the biggest environmental problems today.<sup>13</sup> This thesis will only focus on natural light (cycles) and will not consider aspects of electrical light and therefore not discuss further light pollution which is affected by electrical light. There is a particular focus on the absence of light as this is the time when the living rests, sleep and have an opportunity to recover from stress.

This work will not cover the extensive user testing phases with a functional prototype. Due to time and cost limitations, this project will be conducted in a more conceptual style.

## 1.5 Methods

Various methods will be used to conduct the research, these include; visits to relevant exhibitions, observations of other than-humans relating to time, light and stress, video documentation, questionnaires, feedback sessions, discussions with experts, rapid prototyping, 3D printing, renderings, programming code and readings. Information gathered from art exhibitions related to the themes include *Härimellanrummen* at Marabouparken (Figure 1.5) and *NK:s Furnitures* at Sörmlands Museum.

Observations of other-than humans and their relation to time, light and darkness include for example observations of the Calathea plant as it moves in different positions depending on light

---

<sup>13</sup> Eklöf, 2017.

conditions, planting a seed of the seasonal (summer) Flower of the Day and a video documentation of the nature phenomenon Spiral grain tree in Tyresta Nature Reserve. Discussions and consultations with experts include Mikael Lindström from RISE leading to discussions about Spiral grain tree as well as a botanist at Country Trade Shop in Nacka reserve on the topic of plants that relate in different ways to light, such as the Flower of the Day and the Calathea plant. Furthermore Johan Landenmark, a nature guide at Tyresta Nature Reserve, informed the project on the topic of Spiral grain trees. Programming instructions were learned at the open-source Arduino website.<sup>14</sup>

Feedback sessions include prototype feedback from tutors such as Charles Windlin, Looove Broms, Katja Petterson, Cecilia Wahlberg, Petra Lilja and Martin Ávila.

Lastly, an online questionnaire was sent out to the students and faculty of Konstfack University in March 2023, to gain knowledge of immediate associations on the various stages of the day.



Figure 1.5 *Härimellanrummen* at Marabouparken, December 2023, Photo by author.

---

<sup>14</sup> <http://arduino.com>, Mars 12, 2024.

## 2. State of Day

### 2.1 Observations of other-than human

The following observations of and research on other-than humans are manifestations in nature that connect to and discuss the themes of the thesis, which are: time, stress, energy, rotation, pulse, rhythm, nuances, light, darkness, growth, degrowth and rest. As will be discussed and re-connected to in the coming chapters, this part of the research has in various ways informed the design decisions for the final design proposal. A selection of the following observations and investigations will be a part of the presentation of the project in Konstfack's Master's Exhibition in May 2024.

#### 2.1.1 The sky – Stages of day (nuances, pulse, rhythm)

The most noticeable 24-hour rhythm is that of light and derives from the rotation of the earth on its own axis: the rising and setting of the sun defines day and night.<sup>15</sup> Eklöf writes “Seek out the darkness and see the various stages of the sky as they shift.”<sup>16</sup> There are multiple websites where you can enter exact dates and location and receive the times for when the various stages take place at the selected location.<sup>17</sup> In December 2023, the darkest period of the year in Sweden, I looked up information about when the sun was scheduled to set to perform an observation of the shift in light as Eklöf encourages in his manifesto. By starting 10 minutes before sunset and continuing for little more than one hour, I set out to capture the transition between day and night. The insights from the experiment taught me that it takes much longer than I was expecting for the sky to become dark after the sun has set. The film captured the three stages of twilight; civil, nautical and astronomical. The prolonged time it takes for these stages to shift, in comparison to other parts of the world, has to do with the latitudes in southern Sweden (northern globe) where the experiment took place.

Swedish painter Eugène Jansons painting *Sunset* (Figure 2.1) came to my mind. This became one of the starting points of the project.



Figure 2.1 *Sunset* Eugène Jansson, 1895.

---

<sup>15</sup> Salomon, 2017, p.198.

<sup>16</sup> Eklöf, 2023, p.241.

<sup>17</sup> <https://www.timeanddate.com>, January 12, 2024.

### 2.1.2 A tree – Spiral grain tree, (rotation, stress, time)

According to Lindström a natural phenomenon relating to the rotation of the earth is the well debatable twisted tree trunks, or Spiral grain tree as the correct term is. In his book the biologist Hugo Sjors writes “A strongly twisted wood also occurs in conifers, which grow on poor soils and in exposed positions, especially in northern Sweden.”<sup>18</sup>

It is not known why the trunks of some trees twist. One theory is that the rotation of our planet over time creates the twist.<sup>19</sup> Others argue that it is a response to the stress that certain trees experience when growing in specifically exposed locations. What we do know, however, is that after a certain time the tree turns – and starts growing in the opposite direction, back again. In the Nature Reserve in Tyresta Spiral grained trees can be seen in the oldest part of the forest. I visited and documented the twisted tree that is about 400 years old (Figure 2.2).



Figure 2.2 Still image from video documentation of Spiral grain tree in Tyresta.

### 2.1.3 A plant – Calathea plant (darkness, rest, energy)

A plant relating to darkness, and rest, in an interesting way and like our own human behavior do is the Calathea plant which closes its leaves together at night to conserve energy and throughout

---

<sup>18</sup> Hugo Sjors, *Nordisk Växtgeografi*, Stockholm: Bonnier, 1967, p.118.

<sup>19</sup> Seubpong Leelavanichkul and Andrej Cherkaev, “Why grain in tree ´ trunks spiral: mechanical perspective.” *Salt Lake City, UT*, 2022.

the day they will bend to track the sun as shown in the photo documentation (Figure 2.6). Because of this you may quickly get used to seeing your Calathea leaves in a lot of different positions throughout the day.<sup>20</sup> Research has shown that clear differences between light and dark in the light-dark cycle over the day also are important for all people.<sup>21</sup>



Figure 2.6 Calathea plant reacting to natural light cycles.

#### 2.1.4 A flower – Flower of the Day (light, growth)

*Flower of the Day* is a summer season flower and gets its name from the fact that each day one flower blooms another wither. In this way it relates to time and specifically seasons like some people suffering from S.A.D - The Flower of the Day is planted in the spring to grow but blooms first when there is more daylight and warmth outside - It is a flower that is well positioned in the current situation with global climate change. One seed was planted (Figure 2.7) that I got from a visit to a Country Trade Shop in Nacka Reserve (Figure 2.8) discussing with a botanist about plants that relate to light and climate in different ways.

Research shows that also people's health benefits in several respects from good access to daylight. The special quality of daylight means that people rate daylight as better than comparable electric alternatives.<sup>22</sup>

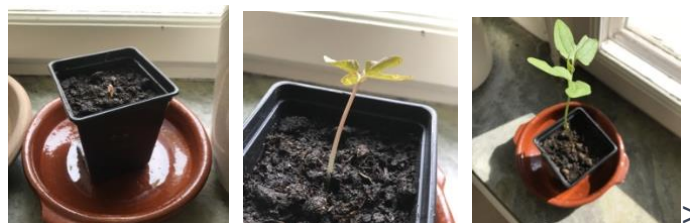


Figure 2.7 Flower of the Day, 1-to-3-week develop.

<sup>20</sup> <https://www.plantsforallseasons.co.uk/blogs/calathea-care/calathea-leaves-curling-what-is-the-problem-and-how-do-i-fix-it>, April 10, 2024.

<sup>21</sup> Filipson, 2017, p.2.

<sup>22</sup> Filipson, 2017, p.2.



Figure 2.8 Country trade shop at Nacka Reserve, Mars 2023.

## 2.2 Survey outcome

A questionnaire was sent out by email to collect data from people at Konstfack University, all with diverse backgrounds, with the simple question: *What is the first thing that comes to your mind when reading the following six words? Dusk, Sunrise, Day, Sunset, Dawn, Night?*

I chose not to include all states of day, which in total are eight (five shades), but instead concluded it to six more commonly known words that still occur within the time frame of the states. The states of day as mentioned earlier are Day, Civil Twilight, Nautical Twilight, Astronomical Twilight, Night. The three Twilight stages occur twice a day, before sunrise (Dawn) and after sunset (Dusk).

A short analysis of the result from the survey is that most answers for dawn and sunrise were associated with beginning and the sunset and dusk with ending, which correlates with Aristotle's definition of time – a before and after.<sup>23</sup>

Furthermore, the Day was associated with activity and stress, and Night a time for rest and silence. There were also colors of gray and orange shades, in the shifting states and blue, black, and red colors associated with night.

---

<sup>23</sup> Salomon, 2017, p.181.

## 2.3 Technology

### 2.3.1 Polarizing film

The project explores how to make a watch without a digital screen and electrical light to display the five distinct shades representing each state of day. With a photography background, I explored polarizing film to display the shades (Figure 2.8). Linear (90 degrees) polarizing film blocks light in one direction and lets through the light in the other (Figure 2.9) – so by rotating one polarizing film in front of a fixed other creates a transition between the colors light grey and opaque black. Since it's 90 degrees and the states of day are five, a rotation of 22.5 degrees for each state is needed to make the representations of a full day (Figure 2.10).

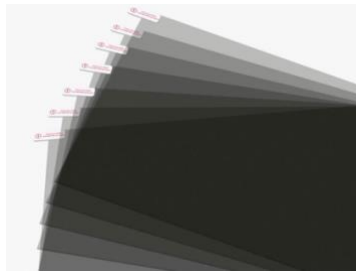


Figure 2.8 Polarizing film shades. Image from internet.

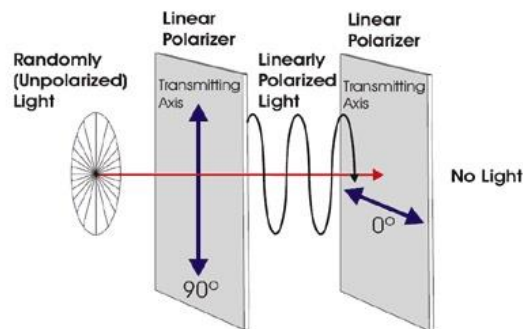


Figure 2.9 Polarizing film explanatory illustration from internet.



Figure 2.10 Illustration by author of each state of day/rotation angle ( $22.5^\circ$ ) of polarizing film.

### 2.3.2 Programming rotation using Arduino code

To make the polarizing film rotate a micro servo motor was programmed using and modifying an existing code (Figure 2.11) in the open-source software program Arduino.<sup>24</sup> To move to precise positions and pause at each for the length of time that the state is for that specific day and location, angles and delays need to be coded in the program.

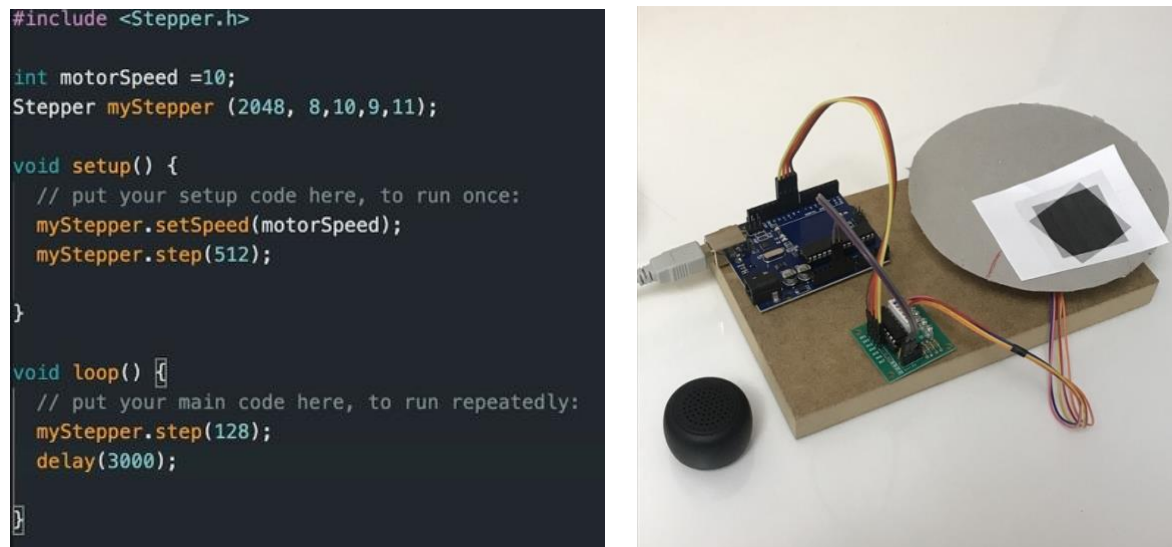


Figure 2.11 Left: Code for the rotation and delay. Right: Early prototype to display states/shades transition.

However, time is presented outside of the boundary of control for a wearer of the watch, that can only view what nature will reveal in a gray scale limited to five distinct shades. *How does it feel to not be able to tell the exact time?*

<sup>24</sup> <https://www.arduino.cc/>, Mars 12, 2024.

### 2.3.3 GPS – DD coordinates (59.292165498 17.991496034 - Telefonplan)

To capture longitude and latitude (Figure 2.12), DD-Coordinates are used in many geographic information systems (GIS) web mapping applications and GPS devices.<sup>25</sup> Decimal degrees are an alternative to using sexagesimal degrees (degrees, minutes, and seconds - DMS notation). Together with a simple clock inside the device and a small chip with data (API) from websites with information about what stage of day it is, the watch would be able to display each state of day at the exact moment they occur.

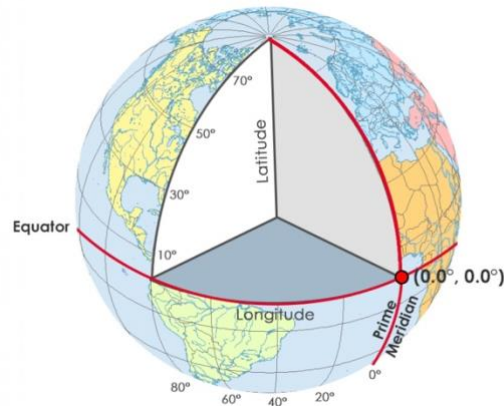


Figure 2.12 Illustration from internet showing longitude latitude.

### 2.3.4 Traditional mechanical clockwork

The project tries to account for the traditions in mechanical watchmaking (Figure 2.13) (that conserves and provides mechanical energy) and elevating it with a low energy digital electric system (that provides geolocation and precise movement of the polarizing film) to put the focus on the natural cycles of time.



Figure 2.13 Reference image, metal spring, mechanical clock and CAD drawing of gear.

<sup>25</sup> <https://gisgeography.com/decimal-degrees-dd-minutes-seconds-dms/>, April 10, 2024.

## 2.4 Materials

### 2.4.1 PLA

The initial idea was to 3D print the watch in a PLA mixed with real wood fibers which suited the project and theme, but mixed material is not the best alternative in terms of recycling as it is difficult to separate and recycle them. Since the project is a conceptual design and not intended to be commercially produced, other materials were not explored further.

### 2.4.2 Natural rubber

As the watch is intended to be worn as a pendant hanging around neck (Figure 2.14) and not a typical wristwatch, the cord is made in a natural rubber origin from the tree's sap (Figure 2.15). According to Lindström the method that is used to otherwise make the rubber black, which is most seen in car tires for example, is to add the chemical Kimrök - one of Sweden's most used chemicals.<sup>26</sup> Therefore I decided not to have the cord in black color as I initially would have wanted, but in natural un-colored yellow/greyish tone. Kimrök is made from burning organic materials, such as trees.

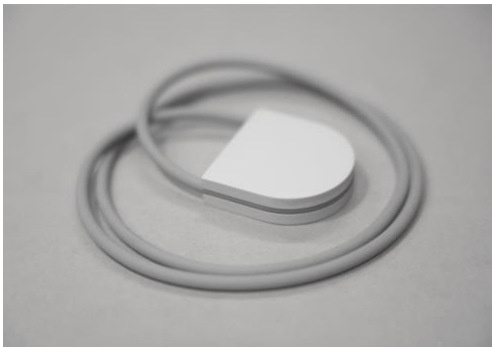


Figure 2.14 Pendant watch with rubber strap.



Figure 2.15 Natural rubber from tree sap.

---

<sup>26</sup> <https://www.landlantbruk.se/sagsspan-kan-anvandas-i-bildack>, April 3, 2024.

## 2.5 Form

### 2.5.1 A circle and a square

*Time is thought of as pulse and rhythm, as that which returns in the same way every time. It shows like a cosmos 'own rhythm, which in the form of a circle returns to its starting point and the starts again.<sup>27</sup>*

The form of the watch is made from a half circle and a half square combined (Figure 2.16).

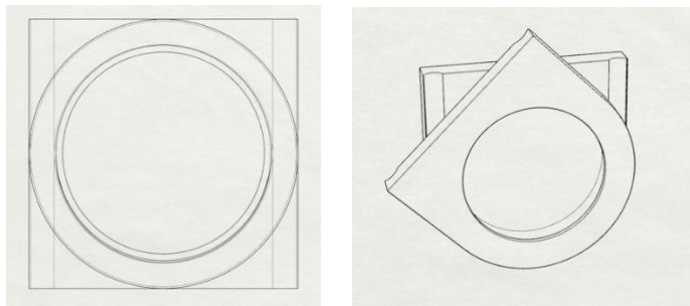


Figure 2.16 Form illustration by author.

### 2.5.2 Årsta holmar (Bridging projects)

The previous project I made was conducted in the Nature reserve of Årsta holmar, under the bridge (Figure 2.17). The negative space was an inspiration for the form of the final proposal for the watch.



Figure 2.17 Årsta holmar, photo by author.

---

<sup>27</sup> Salomon, 2017, p.184.

## 2.6 Color

### 2.6.1 Evening Walk

On an evening walk close to Årsta holmar the sky slowly shifted colors as the sun was about to set (Figure 2.18) - this moment became an inspiration for color palette (Figure 2.19).



Figure 2.18 Årstaviken, photo by author.



Figure 2.19 Color palette. Image by author.

### 2.6.2 Stockholm green

Another inspiration for color is the iconic Stockholm park bench (Figure 2.20) in its typical Stockholm green tone. To me it is a symbol for pause, rest and being outside. It is made from Furu wood in squared shape of 27x27cm (Figure 2.21) – this size is used for the visible glass of the watch. Inside the mechanism of the watch design the gear wheel is colored in the same tone of green, symbolizing both stillness and movement.

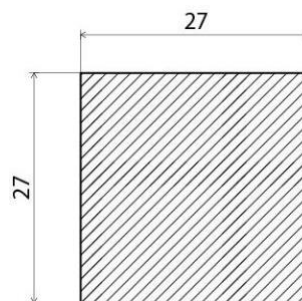


Figure 2.20 Stockholm Park Bench, photo by author. Figure 2.21 Image from Bauhaus website of Furu dimensions.

## 2.7 Design proposal – State of Day watch

In my degree project I examine the living conditions of different organisms in relation to light and darkness, as well as the human relationship to time and natural light. The research has resulted in a product of a mechanically constructed "clock" (Figure 2.22). Without the conventional components that through second, minute and hour hands in detail tell us how time goes by, it uses natural light to gradually reveal the passage of time. By distinguishing and emphasizing the various stages of light a day consists of - and marking the transitions between them - the watch presents a gray scale in a maximum of five shades (Figure 2.23). Based on the wearer's location, the state of day is displayed in one of the shades at a time, linked to the natural light conditions prevailing in that specific location. The result is a constant reminder of the conditions under which you live your day and potentially a new approach to the different stages of your day.

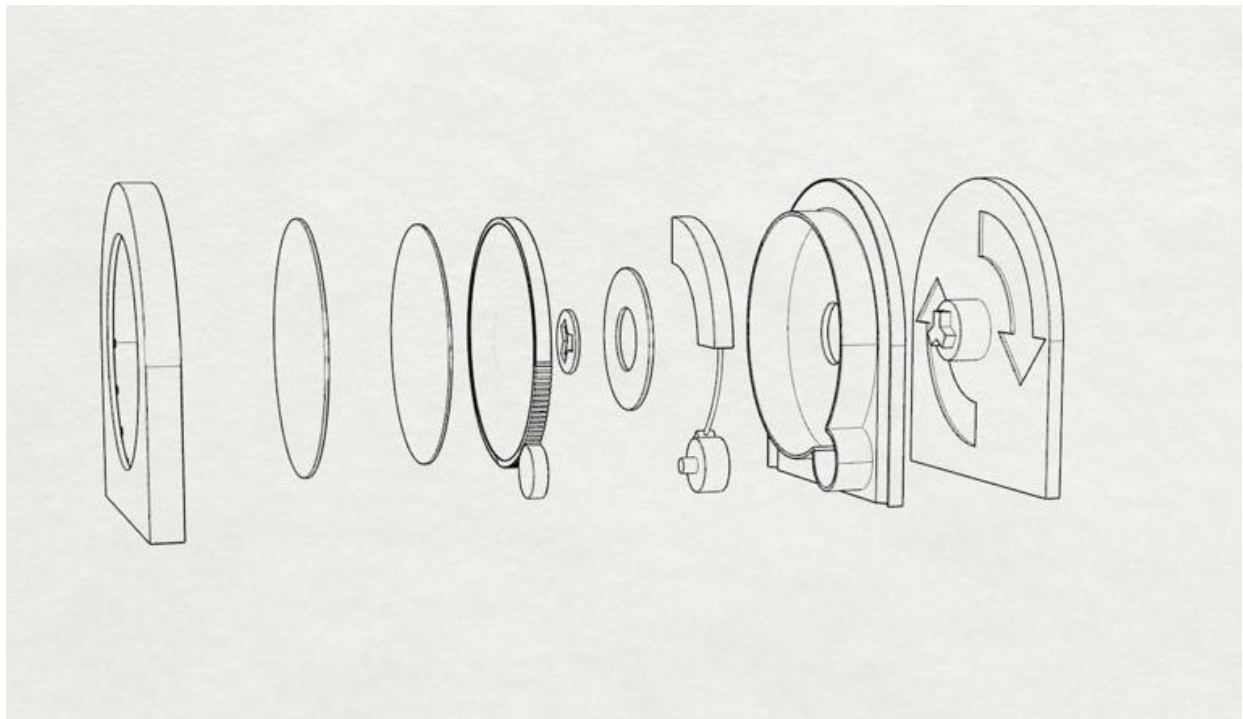


Figure 2.22 illustration made in Rhinoceros by the author. Components from left: front cover including 5 micro magnets, polarizing glass, polarizing glass, holder for glass including a micro magnet, small gear, screw, metal spring, electric digital system with chip and GPS, motor, back case, spring load.

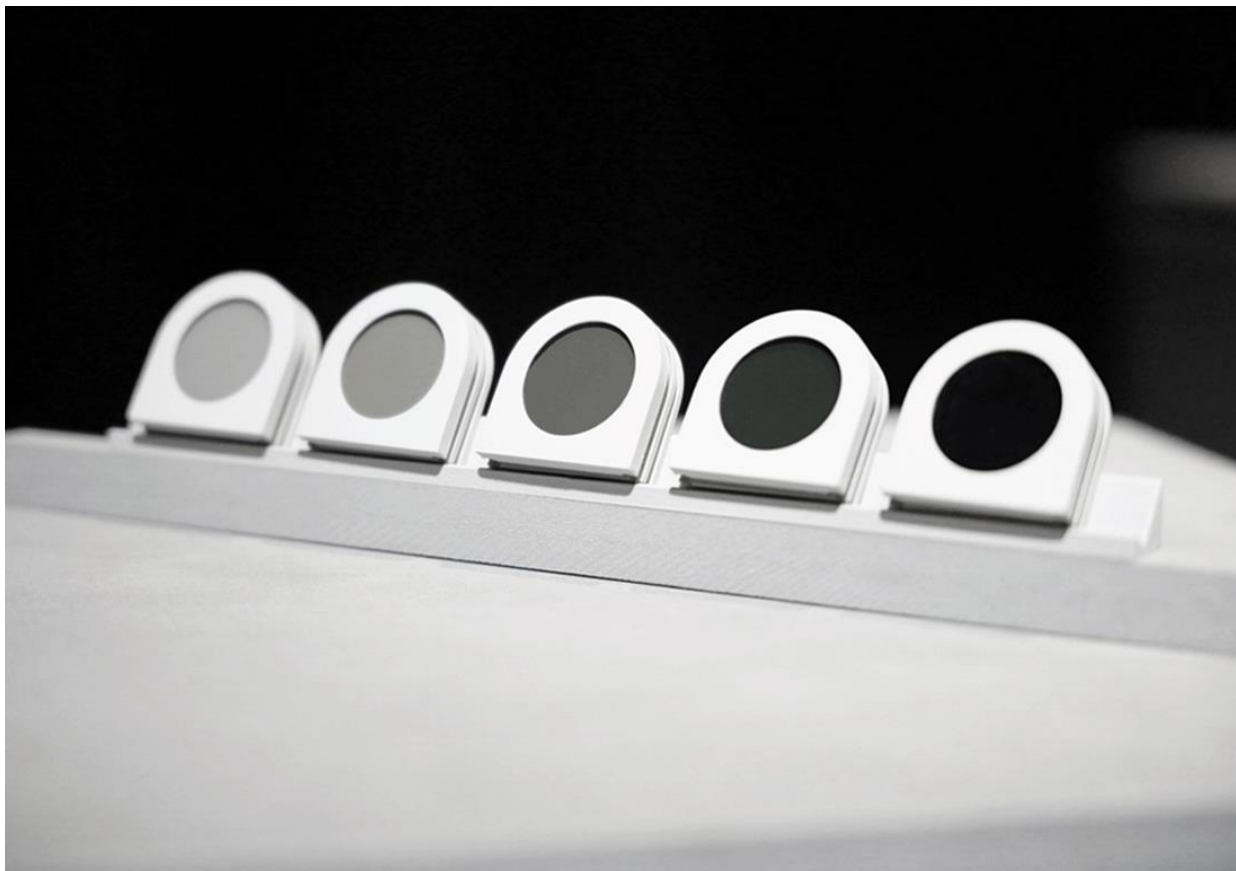


Figure 2.23 Demonstration of the five shades representing each state of day. Image by the author.

## 3. Conclusion and Exhibition reflections

### 3.1 Conclusion

*I don't know what the word "time" means anymore. I've completely forgotten it, have no idea and count thoughtfully, just in case.<sup>28</sup>*

While one of the research questions still is left unanswered: *How does it feel to not be able to tell the exact time?* Another question arises: *Is this time?*

---

<sup>28</sup> Linnea Lindberg, "Härimellanrummen", Exhibition, Marabouparkens konsthall, 2023.

Is it a watch or just an indicator of which stage of day it is? When looking up the word “watch” it says: to look at something for a period of time.<sup>29</sup> In the beginning of the thesis Aristotle's definition of time is mentioned “It is when we become aware of before and after that we speak of time. For this is what time is: a number for motion with respect to before and after.” The five shades are distinct and function well as a teller of which state of day it is. A paradoxical aspect of the technical solution to use rotating polarization film to display the shade, is that they depend on light (natural or electrical) to be able to show the state.

Similar projects with objects that promote mindfulness have been made by the designer Takaaki Oe, specifically the projects “almost a lid”(Figure 3.1) and the project “a day” (Figure 3.2). In the project “almost a lid” a thin piece of paper is inserted into a glass jar and slowly falls downwards by gravity. In “a day” drops of water are placed onto a perforated board to form the date of the day. As the day slowly comes to an end, the water drops evaporate.<sup>30</sup> Both projects are about slowing down and being attentive and in the moment in a similar way to the project “State of Day”.



Figure 3.1 “almost a lid” by Takaaki Oe



Figure 3.2 “a day” by Takaaki Oe

Even if the project State of Day is not a typical degrowth project, it emphasizes a degrowth mindset in the way it is designed with the combination of mechanical and low energy digital electric systems and the focus of the natural perception of time.

In relation to Dunne and Raby’s a/b list (Figure 3.3) the project is positioned in the (b) section and particularly in line with the words that are left uncrossed (to the right).

[ a ]	[ b ]
affirmative	critical
problem solving	<del>problem solving</del>
design as process	<del>design as process</del>
provides answers	<del>provides answers</del>
in the service of industry	<del>in the service of industry</del>
for how the world is	<del>for how the world is</del>
science fiction	<del>science fiction</del>
utures	<del>utures</del>
fictional functions	<del>fictional functions</del>
change the world to suit us	change us to suit the world
narratives of production	<del>narratives of production</del>
anti-art	<del>anti-art</del>
research for design	<del>research for design</del>
applications	<del>applications</del>
design for production	<del>design for production</del>
fun	<del>fun</del>
concept design	conceptual design
consumer	<del>consumer</del>
user	<del>user</del>
training	<del>training</del>
makes us buy	makes us think
innovation	<del>innovation</del>
ergonomics	<del>ergonomics</del>

Figure 3.3 Dunne and Raby a/b list <sup>31</sup>

<sup>29</sup> Cambridge dictionary.

<sup>30</sup> <https://www.t-oe.info/menu/home/research-design/new-rel-sus-cul/nc06-a-day>, May 10, 2024.

<sup>31</sup> Dunne & Raby, *Speculative Everything*, Cambridge, MA: MIT Press, 2013, vii.

One aspect in which the project relates to the program Design Ecologies at Konstfack University is that it is an alternative watch design that tells time based on natural cycles, which is not human centered, but has its own rhythm and pulse, that we as humans by using such an object have to adapt to. This could potentially strengthen human relationship with nature and also result in having a more balanced relationship to time.

### 3.2 Exhibition reflection

To show time in a different way can be provocative and questions that were raised at the exhibition included “how would we be able to meet at a place in a specific time?” and “why would you need a watch like this?” But people have met in all times, even before traditional clocks that came with industrialism and to answer the latter question short: maybe you don’t need such a watch. The product was, as mentioned earlier, developed for debate and as a conceptual design for an alternative to the numerated timekeeping systems normally used in society today. And to discuss the concept of time and how it might negatively impact us.

The informative exhibition texts, which were produced by the curators, were very small and difficult to read for most visitors. The exhibited watches are also small and in need of attention to be discovered by curious visitors, but this is intended by the designer who wants to highlight the importance of being attentive and to appreciate small nuances, such as the transition between the five distinct shades. In the exhibition space (Figure 3.4) the floor is covered with a carpet that unfortunately seemed to make some visitors afraid to step into the space, but once there were marks from previous visitor's footsteps people entered more easily.

Overall, the exhibition was well attended and comments from visitors both varied and had similarities, which was a bit expected since that was also the case in the presentations before the exhibition which had similar reactions from the participating audience. *Why* and *who* would need this type of watch? This could be better communicated in another future exhibition with, for example, a user scenario video or images. Another learning outcome is that there is a fine line to balance between keeping mysterious values and not losing the clarity of a concept.

Furthermore, the mental health aspect is somewhat hidden in the exhibition and only hints with small details such as a video of the Spiral grain tree (which is caused by stress) and a low volume readout from a hidden speaker with some of the words from the survey; “stress, traffic, depression...” This also is intentionally and a comment on the issue of mental health which is kind of hidden as well in society – people suffering from burnout is increasing but it is not a common topic for conversation.

Some visitors shared that they learned from the project that there was no Night at the time of the exhibition, which in Stockholm occurred the last time (before the exhibition period) on April 23<sup>rd</sup>.

Visually the exhibition space had a commercial vibe, with many of the same product in different colors etc. It could have been communicated clearer to the visitors; that it is a conceptual design object with a critical approach to the contemporary timekeeping system that dominates society today. Basically, the message is: Time-Off.

To conclude I will share the words from a visitor at the exhibition “Time is experienced differently by everyone, even the ones that are at the same place at the same time - I like that in this exhibition space you can listen to time, see time, read about time, and experience time.”<sup>32</sup>



Figure 3.4 Image from exhibition space, “State of Day”. Image by the author.

---

<sup>32</sup> Malin Wiklund, Student at the Industrial Design program at Konstfack University, 2024.

## 4. References

### Books:

Kim Salomon, Tiden, Göteborg: Makadam förlag 2017.

Hugo Sjörs, Nordisk Växtgeografi, Stockholm: Bonnier, 1967.

Johan Eklöf, The Darkness Manifesto, Rosersberg: Nordiska Bokgrossisten, 2023.

Matthew Wozniak, Design After Capitalism, Cambridge, MA: MIT Press, 2022.

Dunne & Raby, Speculative Everything, Cambridge, MA: MIT Press, 2013.

### Articles:

Leonardo Caffo, *The Maize Magazine*, "The currency of time", 2020.

Simon Campanello, *Dagens Nyheter*, "Klimatförändringarna påverkar dygnets längd", 2024.

Agneta Falk Filipson, "Light and Health", Swedish Public Health Authorities, 2017.

Seubpong Leelavanichkul and Andrej Cherkaev, "Why grain in tree trunks spiral: mechanical perspective." Salt Lake City, UT, 2022.

### Internet links:

<https://www.stressmottagningen.se>

<https://www.forsakringskassan.se>

<https://www.smhi.se>

<https://www.timeanddate.com>

<https://www.arduino.cc/>

<https://gisgeography.com/decimal-degrees-dd-minutes-seconds-dms/>

<https://www.plantsforallseasons.co.uk/blogs/calathea-care/calathea-leaves-curling-what-is-the-problem-and-how-do-i-fix-it>

<https://lund.se/personalingangen/for-dig-som-arbetar-inom-forskola-och-skola/naturskolan/pedagogiska-aktiviteter/trad>

<https://www.landlantbruk.se/sagspan-kan-anvandas-i-bildack>

<https://www.t-oe.info/menu/home/research-design/new-rel-sus-cul/nc06-a-day>

<https://dictionary.cambridge.org/>