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Depiction of Time

(Obrazowanie czasu)

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Introduction

The concept of time is an abstract concept, yet inextricably linked with tangible matter. After all, time began at the same time as matter, without matter there would be no time. As explained by the Time Traveler in Herbert Wells' famous novel *The Time Machine*, there is no object that does not last even a single moment. Although it seems as if things are floating in the great ocean of time, I think it would be more accurate to say that time is a value that describes an object. It is interesting to explore a dimension that is beyond the direct reception of our senses, but which at the same time is inextricably linked to the existence of an object, and it's experiencing. Just as time is inextricably linked with the existence of matter and available to our perception only through its observation, but itself abstract, matter is the material of art, art that is also elusive and accessible only indirectly, through observation of the organization of matter and the changes taking place in it. Finding such an analogy, I decided to investigate the relationship between these two not fully understandable concepts.

I set myself the goal to examine a work of art in the context of time. First, I would like to consider how time can be represented in a work of art so that it is accessible to us through our senses. I am particularly interested in presenting time as such, that is, the space of time, that is, what is abstract to us. The second task will be to describe the temporal structure of a work of art, this is time intervals that give meaning to a work of art, and time intervals not directly related to it, but influencing its perception. Therefore, it is not a work that presents new theses, but rather a descriptive work, but it does not have the task of creating a complete and exhaustive description, as well as an exceptionally systematic and orderly one. It is an attempt to create an impression or atmosphere that serves as a space for one's own interesting and original expression using artistic means.

The structure of the work is exceptionally simple and corresponds to my working method, that is creating a set of various information on a relevant topic, then trying to record in matter as many of them as possible in a logical manner, creating an artistic work. For this reason, not wanting to introduce too many categories, I divided the text into three chapters. The first chapter contains a record of my comments and thoughts on the ways of representing time, its impact on the work and the processes of perception. There are also references to scientific research included.

The text is illustrated with photos of artistic realizations, which I have selected to present the relevant idea in the simplest possible way. The second chapter consists of

descriptions of the works and the reasoning leading to a given solution, and also contains connotations with the works of other artists, technical information related to the creation process and original interpretations. The last part is photographic documentation of works created over the last four years, included in the final work entitled *Depiction of Time*.

Where did my interest in time come from?

In psychology, there is a belief that childhood has a powerful influence on a person's entire life. Currently, the prevailing theory is that the early years of life are not so determining, but still significant. Following this lead, I could give three memories related to the sense of time: a quiet room filled with the sounds of clockworks, a fascination with the great power hidden in a seed, and the search for fossilized shells in limestone rocks. I think these remembered images and feelings still influence me to this day.

However, the direct impetus to take up the topic of time appeared while I was working on my master's thesis about the relationship between music and art in Paul Klee's work. It was when I read Klee's notes for his lectures at the Bauhaus. I was particularly interested in the description of the ways of depicting time in a painting. Since then, I have been constantly intrigued by this topic, and it can be said that most of the works I have created since then have touched this topic in some way.

Hasn't everything been said on this subject over the centuries of philosophizing?

A hundred years ago, Paul Klee wrote about representing time in a textbook for art students. For two hundred years, that is since the beginning of its existence, psychology has been dealing with time perception. Philosophers have been wondering about time since ancient times, whereas modern scientists measure and define time with incredible precision. So one might think there's nothing more to add.

Meanwhile, despite many very sophisticated theories and extremely complex research, we do not have definitive knowledge about physical time. Neurobiology and psychology, dealing with psychological time, have made great progress in research, but even this concept is still being developed. In art, there are many examples of works relating to transience, duration, history and memories (I will present some of them), but despite this, new and significant ones are still being created. So I hope that my work will also contribute something valuable to our reflection on time.

The method of research I chose results partly from my course of study and partly from my general interests. In my artistic search, I decided to combine the world of science, art and personal impressions. (I am a layman when it comes to exact sciences, so you could say that science is treated in an impressionistic way in my work). My idea is to use scientific tools, by definition used to obtain objective results and observations, to study subjective time.

Isn't this topic too broad?

Currently, there is a tendency to narrow the scope of research, this is especially visible in the natural sciences. There is nothing surprising in this, because today's science is so developed that one team of researchers, especially one person, is unable to be up-to-date with all the latest discoveries.

Scientists therefore specialize in small areas of their fields to walk hand in hand, and push the boundaries of knowledge. This is because science is characterized by reliability and repeatability that allows building a system, unlike art, which may have some objective basis, probably biologically determined, but is extremely variable and allows for speculation. Therefore, despite extremely incomplete knowledge of philosophy, physics, neurobiology, as well as psychology and art history, by virtue of my will and on the special rights of art, I am entitled to interpret even such extensive issues, hoping that there is some sense in it.

Ways of depicting time on examples of works by other artists

In this chapter, I would like to present the widest possible panorama of ways of depicting time in a work of art. My aim is to present all the most important components of the temporal structure of an artwork, using examples of various works of art that best illustrate the issue. I would like to point out that in this comparison I am interested mostly in the fields of art that I practice myself, mainly painting and installation. This presentation will constitute a background to the description of my own proposals for depicting time, presented in the next chapter. On the basis of works included in this chapter, I will try to characterize the temporal structure of the work.

* * *

Art has always struggled with time. It can be assumed that the first works of art were intended to commemorate events or create their simulations, and in the case of all types of decorations, to add value to objects. Even before the invention of writing, paintings could be used to record history. In my opinion, this was the function of cave paintings, which could be used for commemoration and education. Such visual chronicles were also created later, an excellent example of which is the Bayeux tapestry. These types of works highlight the narrative contained in the image, refer to the commemorated period, but also independent internal space-time begin to function in them, which often serves to add emotion to dry facts. Works of art can therefore be a way of transmitting information to future, even very distant, generations. This is very important because the ability to communicate with the distant future is the basis for our entire civilization. The need and ability to "speak" into the future, even beyond the boundaries of our lives, has enabled the development of science and culture. The cave paintings mentioned, as well as the Bayeux tapestry and hieroglyphs, are characterized by the division of the entire composition into smaller fragments, so that the larger whole is broken into scenes, and each scene refers to the one following it. Significant events are shown



1. Bayeux tapestry

as rhythmically placed signs to indicate temporal extension. The same principle governs comics and film, because even in cinema, movement, and the passage of time are contained between static frames, the only difference is a greater temporal resolution, and therefore the film leaves less room for understatement. A very famous use of comic book narrative in painting are the works of Roy Lichtenstein, while the emphasis on the "space between" where all the action actually takes place was placed by Edward Ruscha in his work *The End*.



2. Roy Lichtenstein, Whaam!

It is often said that a photographer immortalizes a moment, this saying is based on the common belief that photographic recording techniques are capable of "freezing a moment". The desire to stop time and experience a (usually pleasant) moment as long as possible or over and over again existed even before the invention of optical methods of mechanical or chemical recording. The expression of this desire is sculptures that give the impression of ephemerality in stopped movement or gesture, and similar compositions in painting. Even today, works are created as a result of the fight against transience and, despite the availability of photography, not only through it. Even the most accurate visual representation is not always able to evoke the right feeling, because all our senses are active at all times, and perception is not objective, but even changes depending on our internal state. Sometimes it takes "manual" manipulation of matter more than a cool eye to convey an impression, and the impression is what we experience and only the impression we can try to retain. Experiences can never be timeless, they are part of the continuity of consciousness, not a separated point on the timeline, yet they are somehow accumulated or summarized in memory, creating memories.

Each of us has memories of moments we have experienced, but it is not a continuous record. We only remember important, exciting events for some reason, while we gradually

forget about the rest. However, this is not a one-way process, interestingly, we can also acquire memories of the past and – what's more – do not distinguish them from the "primary" memory. In this respect, we are susceptible to manipulation even in our own experiences, because it can be said that part of our memory is located not in ourselves but in the objects and matter around us. By manipulating this matter, artists can create impressions of past events that did not happen and even, to some extent, influence our own memories.

As I mentioned at the beginning, all kinds of decorations bind time. Very often these are rhythmically arranged plant, animal or abstract forms, and in their repetition we find a measure of time. Interestingly, the vast majority of ornaments in most cultures are rhythmically ordered. Another aspect of this type of work is the time-consuming nature of decoration, which adds value and makes the decorated item unique. The value of an item increases with the amount of time devoted to it. A simple rule of classical economics says that the rarer a resource is and the more uses it has, the greater its value. Hence, the simple calculation that if time is given only once and has infinitely many uses, it is extremely valuable. Through time-consuming work on an object, we deposit this precious resource in it. Of course, this is not the only criterion determining the value, the quality of the work performed also plays a role. (The high quality associated with an artist's talent or skill also translates into the time it takes the artist to become proficient and learn to use their abilities)



3. bucranium

The criterion of preciousness due to the time-consuming execution of a work of art is very often narrowed and used as the only criterion. You can often hear that a painting is too expensive because it didn't take much time to paint it, not to mention the opinions about the value of ready-made objects. Personally, I believe that time consumption is indeed a good evaluation criterion, but it must be broadly understood. It should be noted that even if a work is brought into existence only by a momentary decision of the creator, its value is guaranteed by the entire period of the artist's work, often lasting his entire life. You can look at this issue

superficially and apply market principles here, equating gold, which guarantees the value of money, to the artist's creative time, which guarantees the value of the work. Another analogy is that today the value of money is based on trust in the stability of the economy of the country issuing a given currency, and this trust also builds over time, just like in art. Kandyński, writing from the artist's perspective, described this mechanism in depth, stating that the creator "must realize that everything he does, every feeling and every thought, makes up on something that can not be touched by hand but what is a very specific material from which his works are made [...]". I agree with this opinion, because even though the work becomes a separate entity after completion, its evaluation is still somehow related to the "spiritual" material from which it comes. So it is related to being an artist. Thinking this way, all manifestations of conceptual art such as ready-made or ephemeral works fit the description because their main material is time, and the creator is involved in their propagation rather than the materialization of his ideas.

An interesting property of the influence of time on value is the increase in prices of objects over time, which also applies to art objects. Of course, this increase can be explained by economic principles, because the more distant the era, the fewer items have survived to this day, and therefore the fewer there are on the market. However, you can look at it from a different perspective and notice that the time passed seems to accumulate in things, adding an additional feature to them. It is not about the transformation of matter itself over time, because this feature is acquired even if the object does not visibly change. The point is that an old painting is only old if it has actually been there for many years, and that makes it original – you can't make an old painting. A work of art and every other thing also contains the time that has passed since its creation.

Many artists play with our perception of the age and originality of an object, showing how time accumulated in an object changes its value and evaluation. The artists use a mechanism here that could be called creating falsification. They create a fake that teeters on the verge of recognition. In the first contact with an artwork, the viewer experiences the feeling as if he or she were looking at the original, that is, the object dating back to the time it seems to derive from. Then, for a moment, disappointment comes when the viewer finds that he has been deceived, and after a while he begins the analysis, discovering how it happened, directing attention to the assessment of the artist's skill in preparing this trick. This type of activity is a kind of Op-art on the plane of time.

¹ Cyt. W. Kandiński, O duchowości w sztuce, Państwowa Galeria Sztuki w Łodzi 1996, s. 126.

For obvious reasons, works that work this way usually pretend to be older than they actually are. Examples of the illusion of old age can be found in the work of Robert Kuśmirowski, very consistently implemented using artistic means such as rust, dust and material wear. His installations often seem to come as much from a post-apocalyptic future as from a nonexistent past.

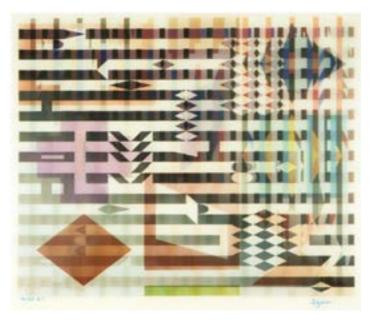


4. Robert Kuśmirowski, Journeyman diploma

Above I have provided the most basic description of the reception of a work based on "forgery", but there are often more intertwined timelines in the work. The situation becomes much more complicated, for example by using real old objects of different ages, equally old but from different places, or by combining antiques with fakes. The artist may also not leave enough clues that, upon closer inspection, would allow untangling this kind of temporal "tangle", which may lead to very interesting consequences.

Op art is also based on the manipulation of our abilities of perception, although of course on a much more fundamental level. The scope of the game with the viewer is limited to the physical space of the work itself, its surroundings, and the time needed to perceive it. A characteristic feature of op art is that even a flat painting or graphic of this type forces the viewer to take time to look at it. Perception must take place in motion, which of course takes time. Obviously, one should remember that each image is perceived in motion and cannot be understood immediately, but in the case of op art this is where the emphasis lies. Works belonging to this direction are intended to disorient the eye, forcing it to move constantly, and this is so important that it can be said that the spectator is necessary to complete the process of

creating the work. The final effect is intended to be in the recipient's brain, and the properties of the eye and brain ultimately determine the work.



5. Ja'akow Agam, Step of Time Memoire

A perfect example is the painting *Step of Time Memoire* by Ya'akov Agam, made using the lenticular printing technique. The composition of the image is dynamic, consisting of many geometric elements, the colors of which enhance the shaking effect. Moreover, thanks to the lenses, the image changes depending on the angle position of the observer. The fact that this is an attempt to incorporate the aspect of temporality into the work is evidenced not only by the title, but also by the author's statement: "I have tried to create painting that exists not only in space, but also in time"².

Op-art is also an example of ceding part of the creation process to the recipient and the forces of nature; this is of course not the only case, a similar thing happens in kinetic art or surrealism. The artist, losing some control over his work, accepts randomness. There are artistic strategies that involve the use of accidental actions in a very wide range, which is particularly interesting in the context of time. An event, including a random event, must take place at a specific time, and the probability of its occurrence can also be determined. Hence, if the work contains random elements, it shows the results of the draw, but also makes us think about the probability and also involves time containing all other possible results of this draw.

² Cyt. Ja'akow Agam [za:] https://artsandculture.google.com/asset/step-of-time-memoire-yaacovagam/rQH2vhKvVCiZPQ?hl=pl, (accessed: 06.09.2023).



6. Ryszard Winniarski, Agame for one

Examples of "random" works show an important mechanism of artistic creation, namely that art is what does not happen most often, that is, when it happens, it surprises. And in my opinion, this is a characteristic feature which is necessary to define art, because art must be perceived as something special, otherwise it would be imperceptible covering such a wide field as it covers today.

Manifestations of art considered static, such as painting, drawing, photography or sculpture, as opposed to film, happening or performance, were often criticized for their alleged impossibility to convey life, nature or existence, precisely because of their immobility. I think this accusation is completely misplaced. Spatial sculptural and architectural forms, even if they are static themselves, due to their three-dimensionality, their temporal aspect is in the act of perception, which necessarily takes place in motion. At this point I would like to add that large two-dimensional objects, especially those placed in places where it is impossible to move away, also need to be viewed piece by piece for a longer period of time. An excellent example is Richard Serra's sculpture *The matter of Time*, it is a spatial form created from huge, bent planes of steel sheet.



7. Richarad Serra, The matter of Time

As I have already mentioned, each image is perceived dynamically by leading the eye over the surface of the work, and a clear example here is op-art, which uses specific phenomena of visual perception also at the level of receiving stimuli in the brain. I will present a few other examples of the possibility of including movement in painting, proving that Gombrowicz was wrong saying: "But how can you express yourself with painting without movement? After all, existence is movement, it takes place in time. How can I convey myself, that is, my existence, using only combinations of motionless shapes?"³.

Indeed, a painting as an object is still, but a single frame cut from a film showing an egg falling on a stone floor is also still, and yet we are able to tell where the egg was just a moment ago and anticipate where it will be and what will happen to it. This is because the arrow of time in our world constantly points in one direction, towards increasing entropy, thus living in a world of unchanging laws of physics, we can predict the sequence of events. "An egg on the sidewalk is like a memory in our brain – it is a record of an event, but only if we impose a boundary condition of a past lower entropy value in the past." Our now is also a kind of frame from a film recorded by the senses, but on its basis we are able to prepare to catch the egg just above the floor, seeing it at the edge of the table in the "now" moment, and at the same time predicting its future movement. It is thanks to these predictions that we feel

³ Cyt. W. Gombrowicz, *Dziennik 1957 – 1961*, Kraków 1997, str. 65, [za:] U. Szulakowska, *Krzysztof Gliszczyński – Autoportret à retour* [w:] *Krzysztof Gliszczyński – Autoportret à retour* kat. wyst. CSW Łaźnia, Gdańsk 2007, s. 8.

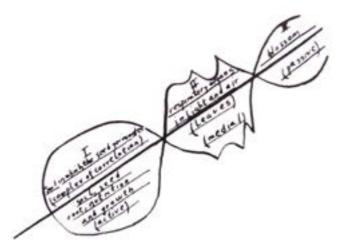
⁴ Cyt. S. Carroll, *Stąd do wieczności i z powrotem, Poszukiwania ostatecznej teorii czasu*, Pruszyński i S-ska, Warszawa 2011, s. 59.

the fluidity of changes and the passage of time, and the knowledge of the law of gravity or the constant tendency of matter to increase disorder, deeply rooted in our mind, means that when we look at an oil painting or a view outside the window, we automatically read potential future and past events.

Knowing this mechanism, a painter can record movement in a still image by appropriately planning the composition and selecting the depicted objects. The simplest illustrations are heavy objects placed at the top of the painting, or diagonally composed oblong objects, this also applies to large dark abstract spots associated with things known for their heavy weight, as well as diagonal lines gravitating downwards. In an obvious and readable way for everyone, it heralds a fall, just as the sight of a dandelion makes us think about its most likely future state, which is to disintegrate in the wind.

The movement and time recorded in the image can be read by the observer (not only because of the physical movement of the eyeballs and the observer himself during perception, which the artist can take into account and plan as part of the work). It results directly from the human ability to recognize places in the world with accumulated potential energy. This ability is needed to predict the consequences and deduce previous events. Places with high potential energy are therefore inextricably linked to the perception of time.

There are many examples, but for me a particularly important item of this type is a seed. The point where all the development time of the previous generation of the plant has accumulated, and the place where the energy needed for future growth is stored in matter. The seed is a perfect symbol of the moment of transition from the past to the future, a section of a sinusoidal line stretching over many millions of years, created by growth and perish.



8. Paul Klee, Plant

This kind of accumulation of the past and a very strong anticipation of the plant's development and its further expansion in time and space makes Ai Weiwei's work *Sunflower Seeds* speaks to me so intense. Considering only the temporal aspects of this artwork, I have to say that the time-consuming process of manually making several tons of ceramics is also important.



9. Ai Weiwei, Sunflower Seeds

In the visual arts, matter is the carrier of the information, and an artist who selects and shapes matter records the message. It is impossible to create matter from nothing, energy put into working on a piece of art only causes its accumulation and transformation. Apart from the symbolism and internal narrative created by the sign, matter itself somehow binds the time that the artist devoted to it (even if it is only the decision of annexation). Moreover, the entire history from the beginning of that matter's existence is encapsulated in it. How the perception of an artwork changes depending on the material used in it can be seen on the example of using linen canvas. Alberto Burri composed paintings from old canvas sacks with holes. The abrasions, seams, and patches visible on them tell the story of a difficult history, and they can undoubtedly be perceived as scars testifying to war experiences, even if the artist himself did not interpret his works in this way. Cornelia Parker used waste fabric fragments left after the conservation of William Turner's painting *The Tenth Plague of Egypt*. The fragments come from a layer stretched underneath the actual canvas with painting and can be compared to an exfoliated epidermis, testifying of the slow but inexorable passage of time. They lack the dynamics visible in Burri's canvases, because for many years they have only experienced

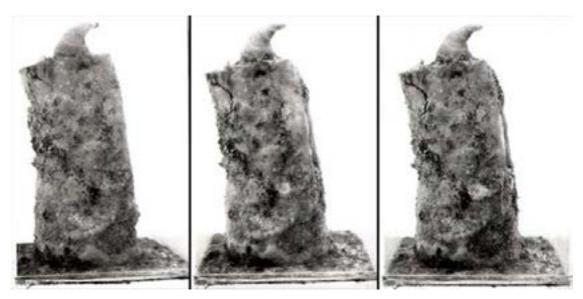
museum tranquility, and they slowly dissolve over time. Yet another testimony is provided by the linen in Kajetan Sosnowski's canvases, as he himself wrote: "Linen and cotton are direct products of the metabolism that takes place in the plant, its exchange between the earth and the sun, which produces oxygen, so necessary for our existence. *Catalipomena* became a tribute to the perfection of nature – to the attention and reflection of the viewer. Sosnowski's series of "sewn paintings" could be an illustration to Andersen's fairy tale *Len*. The tale which presents the fate of flax from a grain, through growing in the field, the process of producing linen, transforming used clothes made from it into paper, to the end of burning it in a furnace. The three cases cited clearly show that events recorded in matter over time can be read and undoubtedly provide an additional layer of meaning. I think this is what Wells had in mind when he put the following words into the mouth of the hero of the novel *The Time Machine*: "It reminded me of a sepia painting I once saw done from the ink of a fossil belemnite, that must have perished and become fossilized a million years ago."

The whole world is in motion and the efforts of some artists to create a lasting, persistent work, supported by specialized restorers, are ultimately doomed to failure. On a macro scale, each painting or sculpture is an event in space-time whose beginning and end do not constitute a clear boundary. With certain criteria given, it is almost impossible to consider a work of art in timelessness, because it consists of matter that never perishes, but is constantly subject to transformation. As in the above-mentioned Andersen's fairy tale, the extinguishing sparks from the linen sheets burning in the fire denied that this was their end: "But invisible, light creatures, lighter than a flame and smaller than a spark, cheerfully denied:

- It's not true, it's not true! The song ends badly. Nothing goes out, nothing is lost in this world, and this is the most beautiful miracle! We know it, we have recognized it and only now we are happy, the happiest! Higher, higher, towards the sky! Who knows what awaits us!" The only question is whether it is still the same entity or perhaps another incarnation, because the border is blurred.

Restorers of artworks made of ephemeral and unstable materials certainly wonder about this. By using easily degradable materials, artists somehow speed up time, consciously introduce random elements and quickly give power over the work to nature. All this leads to reflection on identity over time. To illustrate the problem, I have chosen Dieter Roth's work, *Gartenzwerg*, from 1972. The object is a wooden garden gnome dipped in chocolate. Chocolate mass, as one might guess, is not as hard as bronze and is also a great breeding ground for mold. According to restorers, over the 50 years the dwarf has become covered with

a skin of fungi, its wooden part has cracked, and it is possible that it will soon fall apart. Certainly, at some point, the chocolate-covered dwarf will become a pile of compost, but the question is whether it will still be Dieter Roth's work in this form, and if not, at what point it will cease to be.



10. Dieter Roth, Gartenzwerg

The Earth, like any other planet, has a geological structure. What we can observe on its surface is the result of ongoing processes of accumulation of mineral and organic materials, orogenic movements, weathering and decay, as well as externally intervening solar energy and falling cosmic matter. Constantly occurring changes can be perceived as completely random events, elements of a grand plan, or even a creation process in which someone constantly changes their mind. In any case, the layers of rocks that determine the final external appearance of this great sculpture are a testimony and record of all these changes. It is similar with a painting created by layering, reacting to random factors, sometimes created according to plan and having few layers, and sometimes failures and changes in the concept cause accumulations of paint. The canvas is the place where the idea fits into space-time, and the number of layers indicates the number of attempts (of course, this is a simplification, not all attempts take place directly on the image). The record of time in layers is perfectly illustrated by Piotr Korol's Gravity Paintings, Małgorzata Pawlak's Layered Paintings and the works of Krzysztof Gliszczyński. Korol's paintings are created according to a plan that determines the initial event, the application of the first drops of acrylic in places where the paint will thicken. Then the artist applies colors (by immersion in a paint tray), layer by layer,

until the desired result is achieved. The way an image is created is largely predictable, the layers are subsequent stages of the plan, there is an analogy to a deterministic model of the world. Layered images are created in a slightly different way, there is less order and there is no beginning that determines the final effect. The artist's intention is to illustrate the process of striving for the ideal and the influence of the environment and the moment on the final effect. The final version of the painting is largely surprising and unpredictable, so the layers illustrate the twists and turns while working on the painting. In Gliszczyński's works, the layers are constantly reorganized; thanks to the encaustic technique, he is able to apply subsequent colors and then go back in time, scratching them off, to then add matter in a new configuration. Such activities in the mini world of the painting bring to mind the model of a cyclic universe in which the arrow of time changes its direction rhythmically.

Art deals with time in the sense that it transforms ideas into matter and, in the process of reception, produces sensations through matter. Matter is shaped by the artist and then changes over time under the influence of the forces of nature. Thus, every work of art shows the existence of time, and only by this achieves the status of a work of art, because an artwork must be unique, and the only guarantee of uniqueness is the passage of time. The uniqueness, or as Walter Benjamin wrote, the "aura" of an object, lies in the impossibility of going back in time. What has been created will never be created at the same moment again. Even though reproduction possibilities change the approach to a work of art, and graphic prints or film copies can be viewed in many different places at once, they refer to the original and the moment of its creation, and it is this moment that gives them authenticity. Another issue is that the copies develop the temporal structure of the work. They refer to the time of creation of the original, but also acquire their own history and, in a certain way, allow the original to exist in many places at the same time, revealing its history and distinctiveness after closer analysis. This issue can be observed using the example of graphic and film techniques. An interesting illustration here is Christian Marclay's film The Clock. The projection lasts 24 hours a day and consists of many fragments showing clocks, watches, alarm clocks and hourglasses, arranged minute by minute so that, after synchronization, the time on the film is the same as in reality. This is a good example, just like any other film, that can be seen in many places at once, in a gallery cinema or on the Internet, almost everywhere in the world at the same time. As in other similar cases, the question arises whether it is still the same work if it is displayed once on a tiny phone display and once on a large cinema screen. It seems that the answer is in a reference to the moment of creation. Moreover, The Clock is a found footage video, which is particularly interesting because it further complicates the structure of time by referring to the films from which it was made, as well as to the moment of their compilation. It is worth noting that thanks to this transformation, film time becomes identical with the real passage of time.



11. Christian Marclay, The Clock

I believe that uniqueness, understood as I described it above, allows a work of art to maintain its status, I also stated earlier that art is something that does not happen most often. Both conclusions, however, referred to the work itself, that is to the moment of its creation and the material testimony of this event, but the issue of uniqueness is equally important in the process of perception. Each perception of a work can be understood as a separate act of creating it for the recipient, because even the same person, is changing over time and thus will perceive the same work differently each time. The artist creates the basis for analysis, develops a structure that is a guide to understanding his intentions, but each recipient builds their own understanding on this basis, depending on their personal experiences. Because, as Umberto Eco wrote, "a work is at the same time a testimony of what it was supposed to be and what it actually is, even if these two values do not coincide". I believe that observer has influence on what a work actually is. However, the creator may try to increase or decrease the diversity of meanings, intensifying the variations through vagueness and including random elements in the work or, on the contrary, may try to maintain one way of interpretation. Ambiguous works adapt themselves again and again, and unequivocal ones lose their relevance over time. An illustration of these considerations may be the story The Book of Sand by Borges, in which the action takes place around a book without beginning or end, in which you can see something different each time you open it. I think that *The Book of Sand* can be understood as a work that is constantly being interpreted anew and differently.

* * *

Visual ways of representing time⁵.

plane – duration

To measure time, you need a clock based on cyclical, repeating changes. The simplest clock is the movement of celestial bodies, more complicated are pendulum clocks or modern quartz watches. Movement is always associated with the passage of time, and if there were no reference point or evolution, then there would be no sequence of events at all. However, there is a word "duration", which describes existence in time and assumes immutability. In my opinion, the best illustration of this concept is a monochromatic, uniform surface with an imperceptible texture filling the entire space of the canvas. Standing in front of this kind of painting, the observer experiences infinite empty space-time, which draws his attention to the only point of reference, himself remaining motionless in front of the painting. If the image were a perfect plane without any defects and extraordinary properties of matter, it could be considered a visualization of boredom.

line – passage of time

Even though time is not accessible to our senses directly, but only by observing changes in the environment, and there is no basis for determining what it looks like, when asked how time can be represented graphically, the most common answer is probably a line. The proof can be found in the number of works of art relating to time, the main compositional element of which is the line. Of course, this is not the only way to visualize time, there are even descriptions of synesthetic visual experiences, such as in the case of seeing music or smells, which are exceptionally diverse and vivid. Although the causes of synesthesia are unknown, a probable hypothesis is that it is caused by non-standard connections developed in the brain between areas responsible for different senses. There is no sense of time, that is a fact, but there is a thesis, supported by interesting research, that the perception of time is accomplished

⁵ I wrote this part of the chapter inspired by Paul Klee's book Pädagogisches Skizzenbuch.

by the parts of the brain responsible for understanding space, and therefore certainly related to vision and hearing. I think this connection explains the visual experience of time, just as it does the spatial experience of listening to music. In any case, the line, illustrating the continuity of events and marking the distance in space, which is inseparably linked with the time needed to travel through it, is a frequent, repeatable and understandable representation of the passage of time.

An arrow is a special type of line because it has an arrowhead and provides information about the beginning and end, so we know the direction of change. Without further thought, we intuitively know in which direction time "flows" in our lives, based on the observation of our surroundings and the sensations of our own body. Therefore, when abstractly representing time in the form of lines, it is necessary to mark the direction to fully record our feeling. Interestingly, the vast majority of people, when they see a line even without direction markings, point to its beginning on the left and the end on the right. It immediately comes to mind that this is related to the custom of writing and reading from left to right, and this is most likely true⁶. Perhaps this is also the reason for the frequent pointing of the left side in association with the past and the right side in association with the future, although the clear tendency to look left upwards when recalling past events is not so obviously associated with any learned habit. In any case, an arrow is a special type of line that forces the direction of its development, and it is known that just as a movie played backwards changes its meaning, lines with opposite vectors have different meanings. The backward arrow means retrospective, reflection on the beginning, it represents a conservative system, as opposed to a developing line, somewhat aggressive, stretching into an unknown, surprising and changing future.

rhythm – changes

I wrote that we observe time based on perceivable changes, yet a straight line is uniformly unchanging. Is there a contradiction in this? Well, no, since perceiving the passage of time is possible because of changes in the position of the eyeball, that is eye movement. And if we see a line with a marked direction, we get additional information indicating in which direction this movement should take place, from the beginning towards the end. However, even then it is a monotonous movement, ultimately turning into unbearable boredom, because the only characteristic event, the beginning, somewhere along the line becomes so distant that

⁶ The research was conducted on people who wrote from left to right.

proportionally it almost does not matter whether it is a thousand moments or a thousand and another. Therefore, prisoners drew rhythms of lines on the walls, then grouped them into larger units to establish more reference points.

Our consciousness could be described as an interconnected sequence of past and future "now" moments with the present now in the middle, which is why rhythm, made up of many smaller elements, captures the experience of time so well. Such a description, based on the belief that the present has its own extension and is not just a boundary between the future and the past, is consistent with scientific research. Wilhelm Wundt, a pioneer of experimental psychology, discovered that an interval of 2.5 to 3 seconds between metronome beats is the maximum time interval in which we are able to combine two such beats into a subjectively formed group, trying to mentally emphasize every other beat. Ernst Pöppel, interpreting this property of the human mind, wrote: "[...] to integrate something means to allow the thing into one's present presence, to be able to have this thing as an experience for now. Therefore, I suppose that some time-limited integration mechanism underlies the subjective present, the sense of now". The simplest examples of the artistic interpretation of consciousness as successive segments of time with internal consistency are various types of sequences of spots and signs. These may be rhythms such as a uniformly wavy line – illustrating routine, or a series of various spots representing trust in luck.



12. Paul Huxley, Untitled No. 44

⁷ E. Pöppel, *Granice świadomości*, Państwowy Instytut Wydawniczy, Warszawa 1989, s. 61.

Discussing the ways of representing time in art, it is impossible not to mention allegory and symbol. Therefore, at the end of the chapter, I will present several examples of this type, but in a very short form, because the symbolism related to time is extensive, and I only care about highlighting this way of depicting it.

Time, as an exceptionally important category, was represented allegorically in many ways, in Europe, often in the form of the Greek god Chronos, an elderly man with wings, a scythe, and an hourglass. There are also many representations showing the passage of time, that is, death, ugliness and decay, including the medieval motif of *danse macabre*, Nicolas Poussin's paintings *Et in arcadia ego* and other paintings constituting memento mori such as still lifes showing *vanitas* usually with withered flowers or a skull, as well as figural compositions depicting phases of life such as Hans Baldung's painting, *Seven Stages of a Woman's Life*. The most common symbols of time are related to its measurement, so the most common are, obviously, various types of clocks.

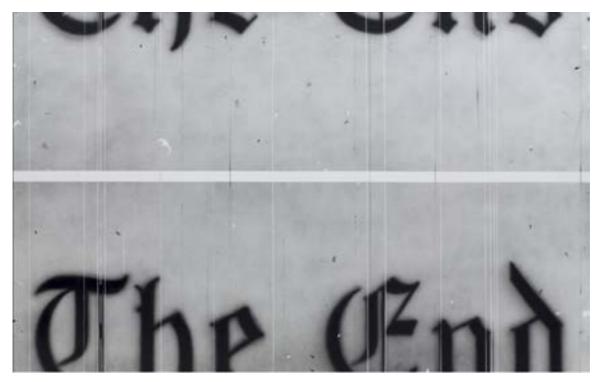


13. Marta Antoniak, Time Capsule, Hans Baldung, Sewen stages of a woman's life, Ed Ruscha, Time is Up

* * *

The examples and interpretations provided in this chapter are an attempt to list various ways of illustrating artistic strategies involving the manipulation of time, as well as my reflections on the ways of presenting time, as well as its impact on art objects and their understanding. This is a concise record of my artistic research and a summary of many pieces of information obtained from books on the discussed issue, in various fields in which the

meaning of the word time is understood differently. A scientist in any field, whether a physicist, art historian or psychologist, would probably find this to be an extremely messy list of information. I think so too, but a similar ambiguity also occurs in everyday life, and it is this ambiguity that is most interesting to me as an artist, and I am trying to present it, because, as I wrote in the introduction, art itself eludes definitions and is well suited for this purpose. Therefore, all the information I saw, read and heard contributed to developing my own solutions to the problem of time imaging, which I tried to make interesting and, as far as possible, original, and I will present them in the next chapter.



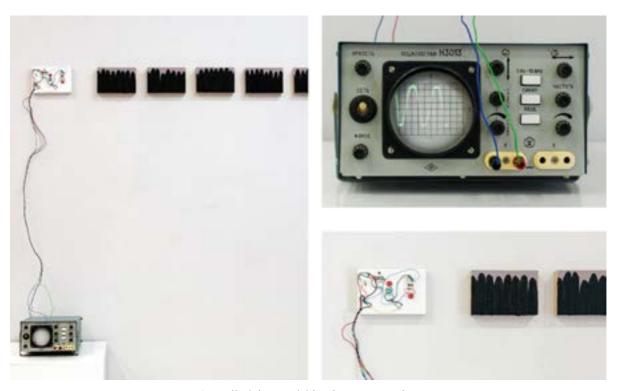
14. Edward Ruscha, The End

Description of works from the series Depiction of Time



Electronic Paintings

The *Electronic Paintings* that are part of the doctoral work are part of a long-developed series that began at a time when I was intensively exploring rhythmic compositions. The work that started this interest was a painting titled *Farboplot*. It was a quite realistic depiction of a hedge of arborvitaes, similar to a series of vertical brush strokes that tightly covered the entire frame. In subsequent versions of the composition with the hedge motif, I gradually simplified the form and lengthened the size, placing more and more emphasis on monotony and repetition. At the same time, reducing the semantic emphasis of obstructing the view⁸ and the feeling of separation, which was also important in the first version of the painting, and implemented through thickly applied paint and a relatively large number of details in the foreground. The dense structure of the thicket of needles was intended to engage the viewer's attention so that they involuntarily try to find a gap between the twigs and notice the "painted over" landscape.



15. Mikołaj Kowalski, Electronic Hedge

⁸ A perfect example of referring to the concept of a painting as a window to the world and covering the view, are the paintings of Emilia Kina.

The constant elongating of the picture and simplification of the form in subsequent works of the Farboplot series led to an idea based on the association of the outline of a row of thuja treetops with a sinusoidal wave displayed on the oscilloscope. I decided to create an electronic circuit that generates sinusoidal alternating voltage and connect it to an oscilloscope so that the shape of the wave could be seen. Since my starting point was painting, I decided to place electronic elements connected by wires on a primed canvas to make it look like variously shaped and colorful elements of an abstract composition. At the time, I knew of various examples of artworks in which artists took advantage of the attractive appearance of electronic parts and incorporated them in various ways into their paintings, sculptures or installations, but I did not know of anyone who also exploited their functionality. The idea seemed interesting to me, especially since the designed functioning of the entire system introduces an additional meaning, which makes the image even richer in possible interpretations. I decided to start working on the project, the only problem was my complete lack of knowledge of electronics principles. I started learning from how-to videos on the Internet, do-it-yourself books and more or less successful trials on my own. Eventually, after several attempts, I managed to achieve my goals. The aesthetic effect was satisfactory, and the functions invisible at first glance featured in the seemingly abstract collage composed of colorful cables and electronic components gave to the image something that could be called a "soul". This thought intrigued me, and I started to create further compositions from electronic circuits separate from the Farboplot series, giving the paintings various tasks unrelated to the analysis of rhythms.

As an integral part of the creative process, in the series of works that I called *Electronic Images*, I use recycled electronic equipment, changing its strictly utilitarian function into a "senseless" artistic function. As I reuse parts, I select their electrical parameters for the designed system, reconciling them with the visual features important in the composition of the image. I incorporated the use of online tutorials and books for hobbyists into the process of working on Electronic Images. I found that using tutorials and instructions created with the aim of learning through practice and fun, brings additional meaning to my works. I would like to point out that an artist motivated by curiosity materializes subsequent ideas, wanting to see them with his own eyes, touch them, find out whether and how they will "work". An artist's incentive is similar to the motivation of a person who decides to make a nesting box or a light bulb dimmer with his own hands. Both an artist and a hobbyist want to better understand the

⁹ I am referring to the frequent colloquial use of this word in relation to works of art. I think that meaninglessness understood in this way can even be accepted as one of the determinants of a work of art.

mechanism of action and check whether the intended goal can be achieved. Such an analogy is certainly justified, curiosity about the world and the desire to deal with matter and leave the creator's personal mark on it is appropriate for both an artist and a tinkerer.

It is also interesting that the value of handmade items is often assessed higher than those made by machine, despite having the same or worse functional properties. The value increases due to the time needed to make it, but also due to the imperfections that make the item original. A person, the touch of his hand, his temperament, his efforts, and his thoughts are recorded in the imperfections. Therefore, it is through imperfections and a measure of randomness that computer systems distinguish texts written by humans from those created by artificial intelligence¹⁰.

The fun aspect of both DIY projects and art cannot be left out. Sewing trousers yourself, apart from the situation of compulsion or necessity, is a kind of fun, a pleasure of practicing dexterity and learning new skills. It happens that someone grows tomatoes in a pot, although the work and costs are much greater than if they bought them in a store, so one can say that they do it for fun rather than economy reasons. You can certainly find similar mechanisms in art, art can be entertainment for both the artist and the recipient, it can also be a show of skill, but for me the most important issue is learning through experiment. I believe that learning by attempting to materialize ideas is a function of both art and DIY, and by combining these two activities in my artistic strategy, I try to highlight this common area.

There have been times in history that it was amateur attempts that brought great discoveries, research undertaken on the margins, incidentally and for fun, revealed more than serious research projects, which is why I believe that the slightly frivolous, playful nature of the experiments I conduct does not detract from them in any way. When designing Electronic Paintings, I most often use schematics of children's toys, electronic gadgets and popular science presentations. I try to make the painting a game between entertainment and curiosity, and artistic values, as well as the content and feeling conveyed in it.

¹⁰ BBC Inside Science - Chatbot plagiarism, https://www.bbc.co.uk/programmes/m001gx1g (accessed: 03.07.2023).



16. Mikołaj Kowalski, Drops

After a series of a dozen or so paintings made in the technique of "tangle of cables and electronic parts" on canvas, quite expressive and dynamic compositions similar to lyrical abstraction, I became interested in more geometric arrangements and the possibility of using laminated boards as a canvas. By this point, I had already seen many types of electronic boards, and I was fascinated by the variety of drawings and forms of tracks printed on them. I decided to use this technique and create my own shiny drawings from copper and tin, apart from this change, all the previous assumptions of Electronic Images stayed the same.

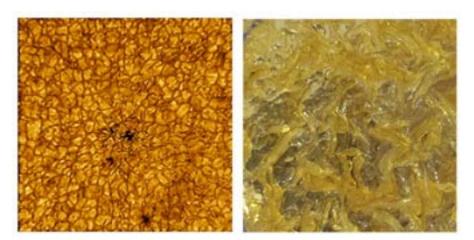
The basic method of making printed circuit boards is very simple and basically very similar to etched graphic techniques. One needs to design the desired drawing, transfer it to a copper foil-coated board using a water-insoluble medium, and then etch the unprotected part of the metal. Of course, there are still more side activities that need to be performed to achieve the desired visual and functional effects, but I will omit them for simplicity. The similarity of this technique to printmaking seemed interesting and in some way funny, as did the name of the PCB Artist¹¹ graphics program, created for designing diagrams and printed circuit boards, which I chose to work on projects.

I included three electronic works in the doctoral set: *East West*, *Thaw* and *Drip*, *Drip*, *Drip*..., and the previously described *Flower Clock*. I selected the works so that they

¹¹ PCB stands for printed circuit board

"intertwine" and complement each other, both semantically and visually.

Before the advent of radio signals and atomic clocks, the only widely available and accurate source of time information was the sun. Until the beginning of the 20th century, in order to eliminate errors in mechanical clocks readings, it was necessary to synchronize their readings with the sundial from time to time. For humans, the sun is the most basic and most important indicator of the passage of time, so I decided that when thinking about ways to depict time, I had to include the sun in my work. The answer is the East West installation, depicting the movement of the sun in the sky. The installation is powered by solar energy, so the operation of this mini sun is directly related to its prototype, which creates an interesting relationship. The blue sky is made on canvas fromwax mixed with pigment, as the thick layer of slightly light-transmitting wax adds a sense of depth. The use of encaustic also increases the drama, because although the installation needs sunlight to work, too much light can dissolve the wax and destroy it. The electronic circuit used to build the drive of this "solar" pendulum is based on the circuit used in maneki-neko figurines of cats waving their paws. The sun is made of a thick layer of pure linseed oil, which, as it dries in the tin, becomes wrinkled so that it resembles the surface of the sun as seen through the Inouye telescope. The shiny backing, however, is a piece of a helium balloon that, after rising too close to the sun, burst and fell into the forest where I found it. To emphasize the painting origins of the entire installation, I used a coil with the inscription POLKOLOR removed from an old TV set.



17. L: Photo of the sun through a telescope INOUYE P: Detail of the artwork East West

In the old days, when mechanical clocks were expensive and rare, in addition to observing the sky, candle, sand, and water clocks were used to measure time. Of these three types, water clocks are the most frequently created on their own, measuring time for

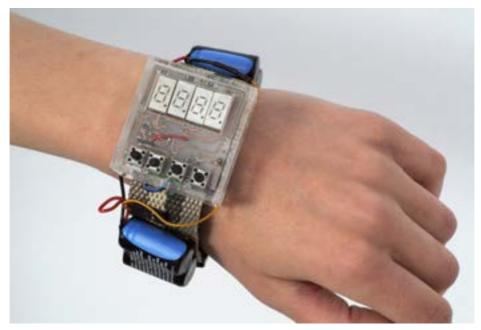
themselves. A leaky gutter, a hollow in the rock, a bent leaf, a leaking water meter or a tap that's not turned off properly. There are plenty of places where water appears and then drips out steadily through a hole. Time passes even when no one is measuring it. Anyone who has listened to the dripping of a tap in the kitchen in the evening can feel the aptness of this comparison. Anyway, the tap in the kitchen was indeed an inspiration for the work Drip, Drip, Drip,... Listening to the various sounds of dripping, I decided to create an image-electronic circuit that produces the sounds of drops. The sound is generated electronically in the following way: the modulated acoustic signal goes to a system that shapes and "cuts" short "drips", and then reverb is added.

Dripping smoothly introduces you to the time of year associated with the next work, in early spring, when icicles melt and lumps of wet, dirty snow lie in the ditches. Then I go on a search to find another "abstract sculpture" for my collection of *Last Year's Snow* among the endless variety of forms. Someone who doesn't pay attention to these fanciful forms probably doesn't know how quickly they change and disappear into puddles. Because of my efforts to preserve them, I observe this process again and again every year. Every time it is a race against time. I tried to reflect this atmosphere by creating the installation *Thaw*, which includes hand-made electronic counters with digital displays counting down ten million moments to zero. I used vacuum fluorescent displays because of their fascinating and unique color and technology associated with the past. Above the printed circuit boards, I placed photographs of snow remnants made with use of the lenticular printing technique to give the impression of three-dimensionality. Thanks to the use of color photography, used in the work *Thaw*, I was able to devote more attention to conveying the color mood of spring green grass in a unique combination with white snow and colorful wet New Year's Eve garbage and various substances that color the snow.

The obvious background for the series of Electronic Paintings, considering the name, would seem to be the area of art known in English as electronic art. It is a very broad term, and its Polish equivalent is, I think, new media art, including digital art, electronic music, internet art, robotics, and even biotechnology. Despite the fitting English name, this area is not close to my heart. New media artists are often professionally technically educated and create technologically advanced works (often, but not always), which means that I do not feel like I belong to this area of art. My works are deliberately kept in the convention of amateur technical experiments, DIY and school experiences in chemistry, physics and biology. It is also important that my approach comes from painting, so even if I create an installation or an

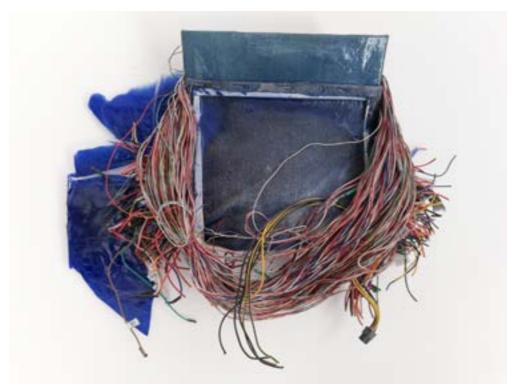
object, I treat it as a form of collage. I pay special attention to colors and what is in painting most important, a mood.

As an example of the effects of using the do-it-yourself idea in an artistic strategy, I would like to mention Janek Simon's work, *Homemade Electronic Watch*, which fits perfectly here. I have the impression that Simon refers in his work to post-apocalyptic visions of the collapse of civilization. He is trying to check how many of the items that we use every day would be possible to produce by ourselves in case of a crisis situation. In the case of the Watch, Simon succeeded and after two months of searching for information on the Internet and working in a workshop, he created a working electronic wristwatch. In Simon's work I find what I am interested in, but the main difference is a great interest in culture and the products of civilization. My interests are quite the opposite, I am not interested in human being, but I am interested in observing the laws of nature.



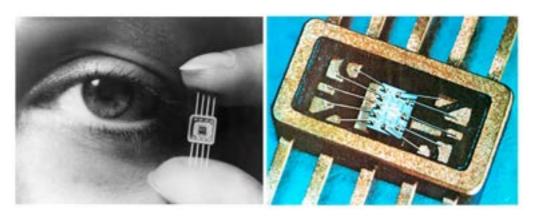
18. Janek Simon, Homemade Electronic Watch

While searching the Internet for examples of the use of electronic parts in art, I found many photos of decorations, pendants and collages made of old electronic parts. In my opinion, most of them were of little artistic value. Due to this abundance, it is difficult to find interesting works of art that use electronics, such as the work by Bartosz Kokosiński "devouring" electronic elements. It is part of the series *Images Devouring Reality*, what can be easily recognized by the colorful cables hanging from the "mouth" of the painting.

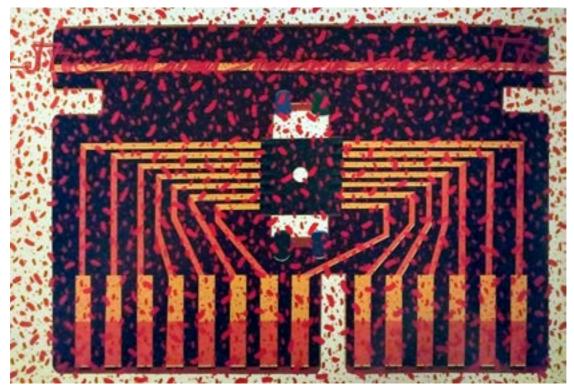


19. Bartosz Kokosiński, untitled

A good example of looking at the rhythms, colors and shapes of paths on printed circuit boards is Gérard Fromanger's painting Et Toi Mon Amour Mon Coeur Ma Vie et Toi. The composition shows the interior or possibly design of the integrated circuit, as you can see in the attached comparison photos. Perhaps this artist, like me and probably many others, looked at the TV or other electronic equipment as an amazing puzzle, wondering what was inside and how it is possible that there is a sound or image hidden in these mazes of tiny blocks. So he looked inside, even deeper than the printed circuit board, because he peeked inside the integrated circuit.

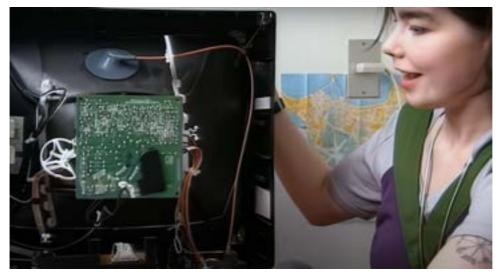


20. Adwerts of integrated circuits



21. Gérard Fromanger, Et Toi Mon Amour Mon Coeur Ma Vie et Toi

We surround ourselves with all kinds of screens and electronics, so we are so used to it that we don't even think about how it works. Moreover, nowadays the technology is so miniaturized that after removing the TV casing, individual parts are almost impossible to see. So if a video with Björk talking about how a TV works, were made nowadays, the story would probably be less interesting even despite the singer's charm.



22. A still from a film in which singer Björk talks about how a TV works.

Perhaps that is why the artist whose trademark is the TV, Nam June Paik, did not always use the latest TV models, although he himself said that the technology: "[...] will allow us to shape the canvas of the TV screen, exactly like Leonardo, freely like Picasso, as colorful as Renoir, as deep as Mondrian, as violently as Pollock and as lyrical as Jasper Johns." This actually happened, technically it is possible to have incredible control over a digital image, but at least in my opinion, this flawlessness and sharpness takes away the vividness of the picture. Perhaps a bit of accidental *sfumato* on the CRT makes the video image more painterly, as in the case of the installation with the "looped" Buddha who, thanks to the camera and screen, remains eternally in the timelessness of meditation. This bit of unpredictability of matter, even in something as planned as an electronic system, allows for playing with materials, often referred to as "fun".



23. Nam June Paik, TV Buddha

A similar approach is presented by Peter Vogel, as aptly put by Jean Martin: "Play, he points out, brings out the *homo ludens* in us: In play the best forces are activated in man, his imagination, his power and his perception is sensitized. Only by playing can man develop his

¹² Nam June Paik, cyt. [za:] J. G. Hanhardt, Nam June Paik: The Late Style (1996–2006), https://www.randianonline.com/np_announcement/nam-june-paik-the-late-style-1996-2006-grasp-the-eternity/; (accessed: 03.07.2023).

creativity, in the interaction between creating, perceiving and reacting"13.

Peter Vogel became known for his interactive sculptures-objects, indeed, these works are interesting and exceptionally "engaging" thanks to the ability to react to the environment and the viewer incorporated into them. What is often emphasized in his approach is the interactivity and properties of the "open work", which clearly needs a recipient to fully exist. Interestingly, Vogel achieved this somewhat as a side effect, as his main goal was to show the time passage. He was interested in art from an early age. Since his father was a painter, he became interested in painting, although he was also passionate about sculpture, music and dancing. However, he chose technical studies because, as he recalled, in the post-war period it was difficult to make a living as an artist. However, his artistic interests did not fade away, he continued to create, and his goal was to combine music and dance with painting. The main difficulty naturally became depicting time on canvas. His first approach to the problem was a series of abstract paintings in the lyrical abstraction type, "[...] he wanted these early paintings to be read like scores, indicating that in common with other abstractionists of the time he already considered his painterly gestures to be essentially temporal rather than spatial."14. After several painting attempts, disappointed with the results and the lack of understanding of the viewers who believed that he had painted landscapes, he decided to use his construction skills.

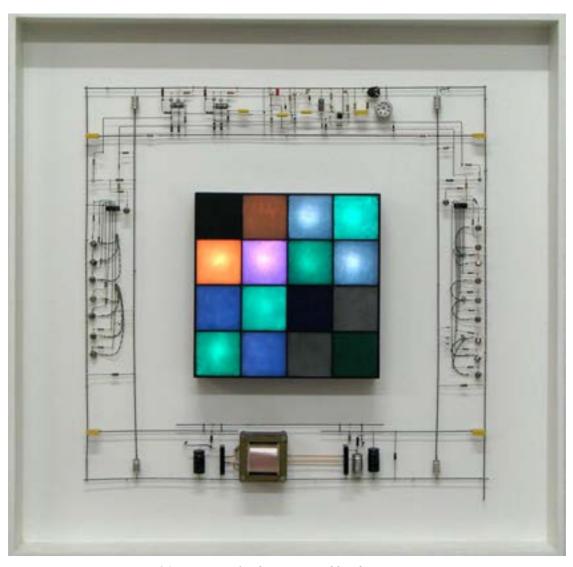
"I wanted to show the pattern of time on a two-dimensional plane, and since this is not possible, I came up with the idea of introducing time to a work of art, to a sculpture that has three dimensions, I added a fourth one – time. The interactivity was basically a side effect" Initially, Vogel created two-dimensional works, but with the addition of movement and randomness in the composition, like for example in *Blaugrune Farbkombinationen*. Later he began creating sculptures, as well as kinetic objects and interactive sound installations. Vogel gradually increased the importance of sound in his work: "Sound was another opportunity to show time, the way an object changes its reaction mechanism [...] The sense of hearing allows you to pick up the smallest detail" I will not describe Vogel's work in detail here, although it is diverse and fascinating, I wanted only to indicate the main area of interest and features of his works in order to build the context of my work.

¹³ J. Martin, *Peter Vogel's Interactive Sou*nd Art, 2011; http://vogelexhibition.weebly.com/jean-martin-peter-vogels-interactive-sound-art.html; (accessed: 03.07.2023).

¹⁴ N. Parry, *Peter Vogel: Contexts a Journey in Time and Space*, 2011; http://vogelexhibition.weebly.com/nye-parry-peter-vogel-contexts-for-a-journey-in-time-and-space.html, (dostęp: 03.07.2023).

¹⁵ Peter Vogel - The Sound of Shadows (2011), Film towarzyszący wystawie retrospektywnej w SBT Gallery na Uniwersytecie w Brighton.

¹⁶ Ibidem.



24: Peter Vogel, Blaugrune Farbkombinationen

At this point I would like to note that I became acquainted with Peter Vogel's works after creating many Electronic Images, and although I was not surprised by the similarity of technology, as it is probably impossible to create an absolutely original work of art, I was very impressed by the similarity of interests, reasoning and conclusions drawn. While I was looking for artists who use electronic elements, I came across a person whose goal was to depict time. Someone who followed a similar creative path, introducing chance, sound, interactivity and "transparency" of construction.



27. Peter Vogel, Interaktives Klangobjekt 36 6 77

Specks and Fluffs

If someone asked me what is most important in my activity, I would say that observing small and everyday things. Perhaps I am not so much interested in creating as in observing, and especially in finding something interesting in common things, which I have clearly indicated with the titles of the exhibitions *Nothing Extraordinary* and *Gray Everyday*. Jacek Sempoliński writes about a similar strategy in the introduction to Krystiana Robb-Narbutt's catalog: "If we are careful observers of life, if the current catches us and we are immersed in it, being painters or poets, we don't need to do anything at all. We just position ourselves so that everything flows through us: air, light, space; relationships with people, also art. In that process, words and colors settle on our apparatus, get caught by some nets which are ours and only ours, but we do not care whether the sediment is just ours or universal" 17.

I am fascinated by everyday life, because that is what is common, the basis of all reality. Just as Denis Dutton¹⁸ decided to define a work of art based on what is most often, rather than extreme manifestations of art, I decided to look at the world, noticing its "building blocks", everything that is often described as boring. I think this approach is perfectly captured by a short quote from Jean Dubuffet: "I am more interested in elements that, being so widespread, are usually obscured for this reason. The voices of dust, the soul of dust, interest me much more than flowers, trees or horses, because I find them alien."

I find a similar conception in Paul Klee's notes, when he described his artistic work as "dedication to small things"¹⁹, I think that is also how Sibyl Moholy-Nagy understood his art. Moholy-Nagy in the introduction to the Pedagogical Sketchbook noted that Klee "Through observation of the smallest manifestation of form and interrelationship, he could conclude about the magnitude of the natural order"²⁰.

* * *

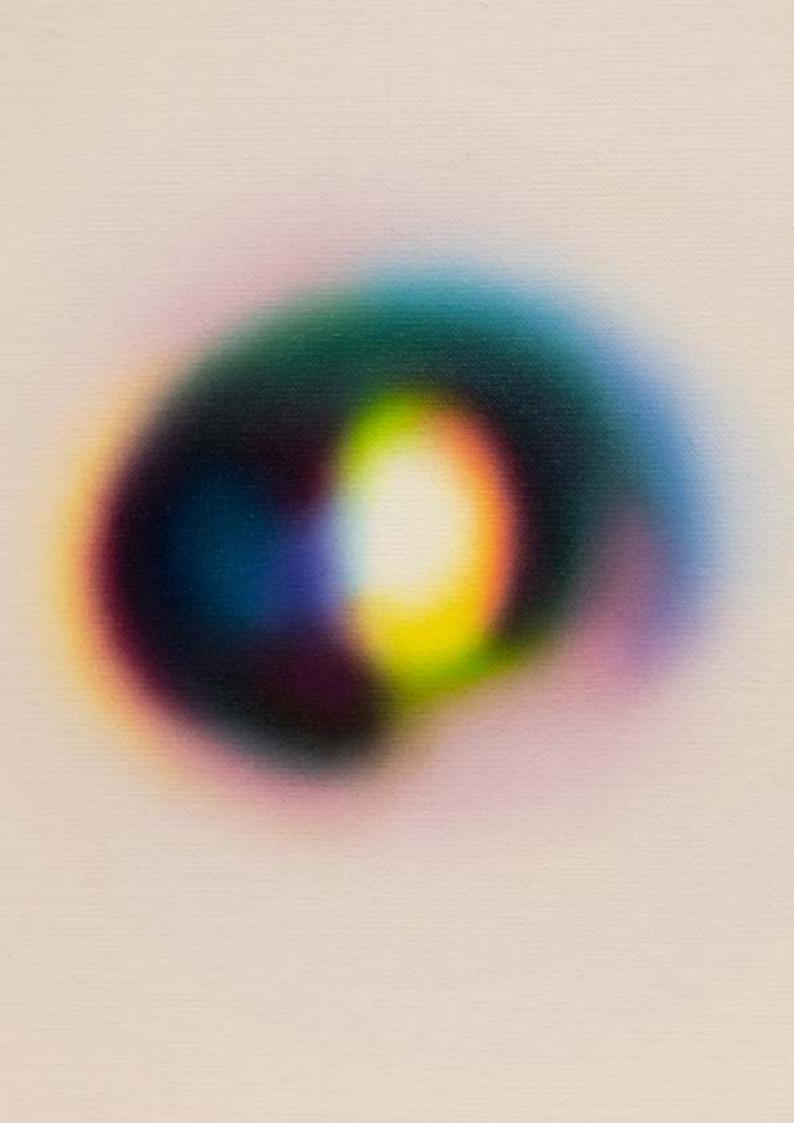
The main part of my doctoral work consists of oil paintings on canvas size 150 by 150 centimeters, showing magnified dust particles. Initially, the series was to be titled *Ashes*,

¹⁷ K. Robb-Narbutt, *Nostalgia jest gdzie indziej*, kat. wyst., Zachęta Państwowa Galeria Sztuki, Warszawa 2003, s. 30-31.

¹⁸ D. Dutton, Instynkt sztuki: piękno, zachwyt i ewolucja człowieka, Copernicus Center Press, Kraków 2019.

¹⁹ Paul Klee, cyt. [za:] S. Moholy-Nagy, [w:] P. Klee *Pedagogical Sketchbook*, Faber and Faber, Londyn 1968,

²⁰ S. Moholy-Nagy, Wstep do wydania angielskiego, [w:] P. Klee, op. cit., s. 8.



which ultimately seemed too pompous to me, or *Dust*, which was too common. I found four exhibitions with a similar title²¹, and the word itself seemed to me a bit too serious. Ultimately, I have chosen the title Specks and fluffs, which was the most relevant and original in meaning.

I thought that dust was a very rarely chosen motif, but as one could expect, as I worked, I quickly realized that I could find many examples of its use, and even, as I mentioned, entire exhibitions devoted to dust.

A work with dust I have known of is *The Great Glass*. While working on that installation, Duchamp left it untouched for a year. New York dust covered the surface evenly, but the artist wiped almost all of it, and only selected dusty fragments were preserved for the final effect. Closely related to this story is Man Ray's well-known photograph *Dust Breeding*, which depicts the work *The Bride Undressed by Her Bachelors* (also known as *The Great Glass*), which is entirely covered in dust. I remember that when I first read about the use of dust in Duchamp's work, I found it interesting, but this is not the direct reason why I started working on a series of paintings depicting dust, dirt, specks and fluffs.



28. Man Ray, Dust Breeding

The first step was to choose a design tool, in this case I chose a microscope. This was caused by the desire to create paintings with a wide range of colors, giving the impression of abstract forms. Another factor was my personal interest in observing nature and the general

²¹ Group exhibition KURZ / DUST / غبلر in Centrum Sztuki Współczesnej Zamek Ujazdowski, Warszawa 2015; exhibition Kurz, Karolina Breguła, Lokal 30, Warszawa 2021; exhibition A Handful of Dust in Whitechapel, Londyn 2017, exhibition Dust Memories in Swiss Institute, New York 2003.

assumption of my work, which was based on a technical or, in some way, scientific experiment. So I bought an old microscope that I had known was no longer up to technical standards. I decided that slightly imprecise optics, causing additional color effects, such as chromatic aberration, enriched the image and corresponded to the desire to balance between scientific accuracy and artistic freedom. In this way, the essential formal values were determined at the beginning by using the tool.



29. Clifford Hooper Rowe, Woman Looking Through Microscope

Despite their "abstract" appearance, the paintings from the microscopic series are realistic, and what is more, it is equally important what is depicted and how it is depicted. Dust wasn't the first motif that came to my mind. Initially, it was a grain of sand from an hourglass, and although I am not sure anymore, it is possible that this particle was the reason I became interested in optical tools. However, it turned out that the sand particles in the hourglass were completely spherical! The variety of possible compositions was too low to create a whole series of paintings, moreover, the meaning of this item did not fit my assumptions. For the same reasons, after the first attempt, I rejected the use of objects that

introduced rhythm to the image. I finally classified the painting with the cyanobacteria Arthrospira platensis, which, is twisted like a spring and looks like a wavy structure, into the Farboplot series.

I didn't want subjective time, but also not monotonous, rhythmic and linear, clock time. I wanted to combine these two views and present time not from a human perspective, but somehow to incorporate subjective feelings into a larger "objective" whole. I realized I needed a motive which can provide randomness. So I created the next compositions based on observations of yeast budding. These were three paintings showing the subsequent phases of yeast growth, but apart from the randomness of the composition, I did not obtain a sufficiently interesting form or appropriate meaning, and the presentation of the subsequent phases as in a time-lapse film seemed to me much too common.

Ultimately, chance became an aid in choosing an appropriately "random" motif. There is a lot of dust in the apartment where I live and work, perhaps because it is located in an old tenement house in the city center. Anyone who has dealt with microscopic observations knows that dusty rooms are not the best for this. While preparing the microscopic slides, I had to constantly wipe them to prevent various types of dust from spoiling the view through the eyepiece. At one point, when I was considering abandoning the idea of Microscopic Paintings, I realized that I was still wiping out what I was looking for. In this way, dust, specks and fluffs became my main motif for illustrating time.

By accident, I realized my idea of introducing random elements into the paintings. I have already written in the previous chapter that I consider chance to be a very important issue related not only to attempts to depict time, but also to art in general, so now I will only add why I think that randomness is very important in composition.

In my opinion, all creativity is based on imitation, because no one is able to create something without prior observations and learning the laws governing the nature, especially since no one is exempt from these laws. Man always recreates something that he has already observed somewhere, and any type of creativity, including artistic work, always imitates nature, so we should look for patterns in nature of what we consciously or unconsciously strive for. From our point of view, the distribution of matter in the world is governed by chance, because even if there is a plan, we will never be able to know it in its entirety, so it is impossible to eliminate randomness. This is where my belief comes from that a good composition is one that looks natural, that is accidental. Composing an image is, after all, nothing more than arranging matter on a plane, and assuming that we strive for a "natural"

look, randomness is what makes the composition right. In such a system, the representation of the world is more complete, because it concerns not only what is superficial, that is the effects themselves, but the cause. Therefore, I fully agree with the statement that: "an image is best when it gives the impression that it was made by itself, not invented by anyone"²².

It might seem that by following chance, we are fated to an open composition, rather non-centric and chaotic. Yet paintings with closed, rhythmic, geometric and organized compositions often also have a "lightness" and look as if they "made themselves". So one might get the impression that my "random composition" theory is wrong. However, this is a false impression, based only on the meaning of the word random encoded in our minds. The common understanding of the word "random" is: other than predictable, orderly, rhythmic, closed, specific. If we look deeper into matter, we will notice that in nature there are rhythms (spirulina), geometric forms (crystals), centric forms (Solar System), and what's more, we can only think about it because there is life, which is probably the most complex form of self-organization of matter²³, and the heartbeat is the most common example of this. We can therefore say that the belief that what is random is disordered is most often true, but it is also true that what is ordered is also a random event, but with a lower probability.



30. Belousov-Zhabotinsky reaction

²² K. Pawełek, *Rozgrywki, systemy i komplikacje*, [w:] *Spotkania z Tarasinem*, red. Z. Chlewiński, J. Czuryło, M. Pietkiewicz, Samizdat Zofii Łoś, Płock 2007, s. 6.

²³ An interesting and visually very attractive example of proof of the self-organization of matter in a chemical process is the Belousov-Zhabotinsky reaction, the discovery and description of oscillations in this reaction seemed to contradict the validity of the second law of thermodynamics, because the reaction without energy input should uniformly tend to increase entropy. Today it is known that the reaction occurs in conditions of deep disequilibrium, the increase in order in part of the system is driven by the increase in entropy elsewhere.

Therefore, striving for naturalness and lightness, I set for the example of a "good composition" an accidental composition. While designing microscopic images from the *Specks and Fluffs* series, I try not to interfere with the photos of the preparations. Preparing a project involves taking a photo, selecting a frame and, in rare cases, removing an element of the composition, but I never move the elements relative to each other, nor do I change their size or color. Ten sposób działania odpowiada mojemu założeniu dążenia do kompozycji "przypadkowej", którą można osiągnąć poprzez próbę imitowania przypadkowości lub wprowadzenie elementów przypadkowych do procesu pracy nad obrazem. W tym przypadku układ cząstek pyłu pozostaje taki sam, jak osiadły na szkiełku mikroskopowym.

The lack of changes in the image is also caused by the desire to maintain a certain degree of objectivity, because I also treat the Specks and Fluffs paintings as a form of "scientific" documentation of my surroundings. This is not the first attempt to show the influence of the place where I live and create on a painting. A few years ago, I drilled a hole in the door between the studio and the living room. I created a camera obscura in order to project the space of the room into the studio, and from time to time I made a sketch of existing situations projected directly onto the canvas. Similarly, in this attempt I record my everyday life in paintings, in a way that is less clear at first glance, but I think even more perfect. Because I live and work in the same place, almost everything I do and all the events around me are recorded on the film of dust covering the entire surroundings. I present sections of this layer, which is a kind of form taken from the entire surroundings, consisting of the homogenized matter of everything I have, me and my friends who visit me, in my paintings. Sanding the canvas, a new sweater, Inka coffee, a maple tree blooming outside the window, human existence²⁴, are recorded in the dust that is a testimony to the passage of time. Passage of time means decay and change, but also accumulation, reorganization and ultimately the creation of something new.

I realized that to me, the impulse to create is often caused by the desire to use something despised and unnecessary. Reuse and recycling is an activity that brings me great joy when working on new installations and paintings. A joy probably known to anyone who has found a second use for an item previously meant to be thrown away. Art seems to be a dream space where you can transfer and reuse practically anything, regardless of cracks, scratches, and failure to meet technical standards. Of course, such zeroing of service life also has its rights,

^{24 &}quot;each of us loses about one and a half grams of exfoliated epidermis a day, which adds up to over half a kilogram in a year", "Ten billion particles of epidermis fall off us every day." P. Wohlleben, The Secret Life of Trees, Wydawnictwo Otwarte, Kraków 2021, s. 96.

not every pile of junk can automatically become a work of art, I think that the main factor enabling this rebirth is the artist's reflection. Perhaps this is also why I started painting the series *Specks and Fluffs*, because I consider the reusing of dust a significant achievement, and the extraction of individual specks and fluffs from this mass and their use is a success.

The concept of recycling has recently appeared very often in the context of caring for the environment and preventing the negative impact of humans on the ecosystem. This is not unfounded, because people are constantly developing their capabilities and conducting intensive activities all over the earth, and these amazing abilities can be used both badly and for good. The old concept of nature as something separate that we can look at from distance and try not to destroy, but also something that has some possibility of retaliation, is becoming a thing of the past. Currently, it is believed that man is part of nature, but a part that has total power over the whole. Nature has been paralyzed by man and controlled from the inside, just as some Hymenoptera do with caterpillars. Power, as we know, brings benefits, but for a conscious ruler it also means responsibility. Nowadays, the climate catastrophe and other possibilities of destruction that depend entirely on humans are often discussed. Such awareness, in more sensitive individuals, may lead to neurosis and being overwhelmed by the burden of responsibility. Changing the scale to a microscopic one may turn out to be a kind of escape, because in this parallel micro-world, man seems not to be so omnipotent. Let the proof be dust on the wardrobe, which cannot be removed once and for all, or dust on the lens, which, no matter what, will always appear. I enjoy the opportunity to observe this diverse and free world, into which it is not easy for man to introduce his own orders, and the forces of nature still seem powerful.

As I have already mentioned, while working on the paintings, I was also looking for points of reference in the works of other artists, related to microscopic observation, as well as dust and various types of particles. I also paid attention to the non-artistic context of drawings and photos of microscope slides, from those made at school during biology lessons to documentation of scientific research, such as drawings by Christian Gottfried Ehrenberg or Ernst Haeckel.



31. Christian Gottfried Ehrenberg, drawing

An interesting example of the use of such documentation in art is Yehor Antsyhin's painting *Tardigrades*. Tardigrade is a frequently used object of school observations, and since this text is about time, it is worth mentioning an unusual property of tardigrades, namely their ability to hibernate. Interestingly, they can wake up from waiting for good living conditions even after a hundred years.



32. L: Joanna Dudek, Still from the video *The Whole World is My Body. My body is my whole world* P. Yehor Antsyhin, *Tardigrades*

It is possible to observe the world that surrounds us through a microscope, but at this scale we ourselves constitute small worlds, so you can point the lens at a human body. This is

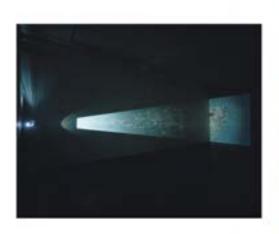
exactly what Joanna Dudek did while working on the animation *The Whole World is My Body. My body is my whole world.* Dudek created a film showing the bacterial cellulose membrane at high magnification. In each frame you can see cellulose fibers and the bacteria that produce it. Dudek chose bacterial cellulose due to its similarity to human skin, in order to become familiar with the matter of her own body through contact with this biological material.

Cellulose is one of the building blocks of cell walls, and it was the cellulose structure of cork oak bark that Robert Hooke observed under a microscope when he first discovered that plants were composed of small "bricks". Based on this observation, he invented the term cell, which we still use today as the name for the basic structure of living organisms. Thanks to microscopy, we have learned that everything is made of small particles, so since everything is divisible, we can imagine the reorganization of matter, using old bricks from a demolished building to build a new one. The gradual decomposition of matter into dust and sand, and then its reorganization into new forms. We know that it is a natural process that constantly occurs in nature. It can be said that Piotr Korol uses a similar process in his work, deconstructing objects and creating images from them. This is what you would say, it does not create an image of the object, but an image from the object. Korol grinds objects, such as a key, a pipe, or a cup, and mixes the resulting powder with a bonding agent to produce paint to cover the canvas with. In such a way, the matter of the object becomes the matter of the image.



33. Piotr Korol, Key

While searching, I came across many interesting works, but it seems that Cornelia Parker's installation Exhaled Blanket is related to my Specks and Fluffs. I think it was created with a similar thought about the motif and also uses optical magnification. The Exhaled Blanket installation consists of dust and fibers from the original couch in Sigmund Freud's office, the fibers and other particles are placed on a projector slide. That is how an enlarged image of various types of lint, probably fragments of clothes and hair of Freud's patients, is projected on the wall. All these tangled fibers are permeated with conversations about important issues and problems that are already so distant in the space of time that they are unnoticeable, like microscopic specks of dust on the horizon. Each lint is a sign of some event in three-dimensional space, which I see, similarly to my paintings, in a luminous background that at first glance looks like a uniform surface.

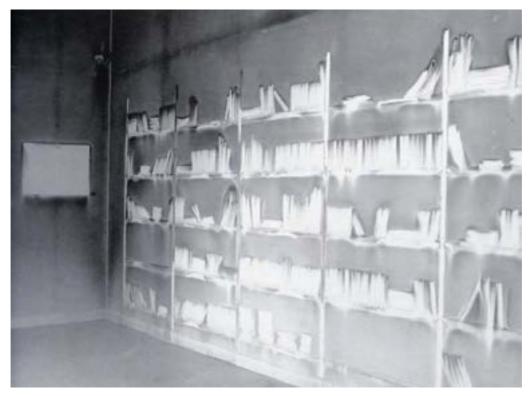




34. Cornelia Parker, Exhaled Blanket

Dust is a testimony of events, as well as proof of existence. For example, when we see gray dust on the windowsill, we can guess that some flat nearby is undergoing renovation, while yellow dust means that there are coniferous trees growing nearby. If a detective enters a room and everything is evenly dusty, he can determine from the thickness of the dust layer how long no one has been there. If he sees that there is no dust in one place on the wardrobe, he will assume that someone took something. Something as common and insignificant as dust

can, on closer inspection, turn out to be a source of information. A perfect example of this are Claudio Parmiggiani's installations, forcing the viewer to deduce and draw conclusions based on circumstantial evidence, fabricated traces of objects, painted with dust on the wall.



35. Claudio Parmiggiani, Polvere

In terms of visual values, my Microscopic Images remind me of the paintings of Jan Tarasin. Some of his abstract works, with uniform backgrounds and various dark objects with blurred outlines scattered on them, resemble a view from a microscope. Tarasin often used light backgrounds with delicate tonal gradations, on which he placed marks, somewhat similar to writing. Many compositions are linear, which is obviously associated with lines of text, hieroglyphs or objects on shelves. The linear arrangement initially imposes a chronological way of reading, just as a text is read. However, after a while, we notice that there are many other arrangements and rhythms visible in the variety of abstract shapes scattered around the painting. I have a similar impression while looking at *Microscopic Paintings*, automatically searching for similarities and constellations in painted objects, I also get the impression of abstraction, even though I know that these are realistic paintings that accurately reproduce reality. However, the term abstraction is justified here because the presented objects are intangible, accessible only through the use of optical tools that provide us a processed image

that is, in a sense, unreal. The hallmark of abstraction is universality, and dust and particles from the microscopic world resemble stars and planets from the mega-scale world, so they are in a way universal. However, the flat luminous background can be understood as a universal representation of space, both in my paintings and in Tarasin's works.



36. Jan Tarasin, Notations

Interestingly, I initially chose Tarasin's paintings as a reference point only for visual reasons, although I felt that they contained an idea that I was also striving for. However, I did not expect such a similarity of thoughts. Tarasin's painting is, as he himself wrote: "The obsessive tracking of the mysterious, monotonous and never entirely repeating rhythm of nature, which moves its fascinating mechanism, causes the pathfinder, making his fragmentary discoveries, entangled in a network of accumulating complications, at some point from the role of a penetrating and curious intruder, the pathfinder becomes reduced to one of the elements of the mechanism"²⁵. This quote proves that the kinship I feel actually results from a similar mechanism of creation, which is based on the observation of nature. This is about "objective" observation, in a sense scientific, not focused on human impressions, the observation of objects and situations and the relationships between them. In both Tarasin's and my observations, the human is an element of the system, not the central point. (An amusingly literal illustration of this sentence is the series Flecks and Fluffs, which actually represent a mixture of human fragments and the matter of animal and plant objects.) Tarasin

²⁵ Jan Tarasin: rzeczy, sytuacje i..., red. Z. Chlewiński, Samizdat Zofii Łoś, Płock 2002, s. 5.

sees the consequence of this view of the world in an open composition, shifting the emphasis from the observer and his subjective feelings to the structure, sequences, rhythm, or even the "rhythm of nature". And rhythm is nothing more than a sequence of events, happening, so as a result of this view, time becomes a very important issue.

In his notes, Tarasin gives examples of paintings in which he sees a similar way of perceiving the world, such as Breughel's *Hunters in the Snow*, and it is indeed hard to disagree with this observation. Indeed, the perspective of the painting does not distinguish any of the events depicted, all elements of the composition interact equally. The temporal structure of the events presented is completely tangled, because hunters go hunting while a magpie is flying, just as someone carries a ladder while others slide on ice. What is striking in the reception of Breughel's paintings is the feeling of the lack of a distinguished observer. Breugel's painting gives the impression that the presented world exists independently, and we have no influence on this world. It is also not known whether we are looking at the painting alone or whether there are many people looking at it, and each of them is looking from a different position and, in fact, these paintings can be viewed in different ways. You can look at the entire composition from a distance, or you can get closer and see more and more new scenes, it is like the painting consists of an infinite number of smaller images, which, when viewed through a magnifying glass, are divided into even smaller images.

Paintings constructed in this way always give the impression of a fragment of an infinitely large whole, and in this respect I find an analogy between my paintings and Tarasin's works, and, following Tarasin's advice, also similarities to Breughel's paintings. I will also mention Jacek Wojciechowski, whose paintings, constructed similarly to the mentioned method, always fascinated me because of the possibility of "enlarging" them endlessly in search of new details.

I also notice an interesting similarity to Tarasin's work in the fact that, just as his paintings depict fragments of one and the same uncountable set of abstract things²⁶, my paintings from the *Specks and Fluffs* series can also be treated as one ever-expanding image based on the documentation of countless amounts of dust.

With such a thorough analysis, we cannot forget about the simplest, mundane and unpleasant interpretation - dust is garbage, unwanted, spontaneously accumulating remains that indicate transience and decay. A perfect illustration here is the work *Sweepers Clock* by Dutch artist Maarten Baas, part of the Real Time series. It is a 720-minute film showing two

²⁶ Ibidem.

street sweepers, minute by minute, moving piles of garbage with brooms. The hard work of shaping garbage into the shape of hands on the concrete square of a clock face visualizes the passage of time.

Decomposition, the effect of the tameless flow of time, forces us to constantly tidy up - to vacuum, to remove the evidence of transience, so that each moment in our tidy apartment is a present with clear contours, not blurred under a layer of dust. The untitled object by Anna Sztwiertnia, presented at the *Great Patch* exhibition at the UFO Gallery in Krakow, can be proof of the truth of this thesis. It is certainly the result of thorough cleaning. The composition consists of a glass container filled with dust and hair, placed on a decorative wooden shelf. Experiencing Sztwiertnia's work immediately proves how deep our aversion to dust is.



37. Anna Sztwiertnia, untitled



38. cosmic dust, photo from the Hubble telescope

Comparing the above photos, someone could say that the dust sucked up by a vacuum cleaner from under the sofa and space dust have a lot in common. After careful analysis and microscopic observation, it may even turn out that it is the same material²⁷. Dust under a microscope may look like nebulas, planets, stars and outer space, and it may even turn out that some of the particles have recently arrived from space.



39. micrometeorites, photo: Jan Braly Kihle and Jon Larsen

²⁷ Tons of space dust enter the Earth's atmosphere every day. It turns out that some of the particles fall to the ground, becoming micro meteorites, they can be found practically on the entire surface of the earth, the main problem though is finding and identifying them. J. Larsen, In Search of Stardust: Amazing Micrometeorites and Their Terrestrial Imposters, Voyageur Press, Minneapolis, Minnesota, 2017.

The appearance of stars and flecks under magnification is not the only thing they have in common. Dust is associated with transience and the inaccessible past, and such associations can evoke a feeling of nostalgia and almost automatically anxiety about the future. The feeling of nostalgic anxiety filled with hope and readiness to act and face upcoming adversities. I think stargazing gives a similar experience. Although these may just be my personal feelings, I feel an excitement similar to that of staring into the starry sky when I start working on a new project. It is a creative anxiety, similar to that before a battle, when the decisions have already been made and the effect depends only on the effort and chance.



40. Cornelia Parker, Bated Breath



41. Vija Celmins, Mount Holyoke

In the text of the above paragraph and by juxtaposing photos of the works Bated Breath and Mount Holyoke, I try to introduce the concept of nostalgia and justify its use in relation to the works Specks and Fluffs. I think nostalgia is an important term for all of my attempts to depict time, and it turns out it's not unfounded. The word nostalgia simply means longing for something unavailable. However, researchers, considering the function of nostalgia in our psyche, noticed that it is significant. First, recalling good events from the past helps us improve our mood and overcome sadness. This is probably why the feeling of nostalgia is associated with sad events, but despite this it is most often described as a pleasant feeling. Secondly, what can you learn from the article Nostalgia: past, present and the future: "Another key function of nostalgia is that it may facilitate continuity between past and present selves. Nostalgia may facilitate use of positive perceptions about the past to bolster a sense of continuity and meaning in one's life. An additional function of nostalgia may be its motivating potential. Nostalgia may boost optimism, spark inspiration, and foster creativity"28. This confirms my earlier intuitive description of the feeling of nostalgia. Krystiana Rob-Narbutt presented similar reasoning in an interview on the occasion of her exhibition at Zacheta entitled Nostalgia is elsewhere: "For me, nostalgia is memory, as in the French understanding of the therm. And this is something creative - we keep the image, it comes back to mind, and we want to convey it. If we manage to do this, if someone else grabs at least a piece of this image and something comes out of it for them, and if they further process it, then it is creative. It's not the kind of nostalgia that makes me sit as an old woman, close my eyes and reminisce in the sun, longing for the old, beautiful times. For me, nostalgia is a creative ferment, without it nothing would be created, no art. People start writing about what they missed or what they experienced, that is, about the images that had been recorded"29. Interestingly, I came across this statement by Rob-Narbutt while looking for paintings visually similar to my work, (the one from the Farboplot series), thus, only on the basis of visual quality, I found a similar view on time and nostalgia.

²⁸ C. Sedikides, T. Wildschut, J. Arndt, C. Routledge, (2008). *Nostalgia: Past, Present, and Future. Current Directions in Psychological Science*, 17(5), 304–307; https://doi.org/10.1111/j.1467-8721.2008.00595.x (accessed: 24.06.2023).

²⁹ K. Robb-Narbutt, *Nostalgia jest gdzie indziej;* www.saskakepa.waw.pl/swiat-wedlug-saskiej/archiwum/nostalgia-jest-gdzie-indziej#utm_source=paste&utm_medium=paste&utm_campaign=chrome (accessed: 24.06.2023).



42. Krystiana Robb Narbutt, Mountain

Clock Installations

Parable

The watch upon my wrist
Would soon forget that I exist,
If it were not reminded
By days when I forget to wind it.

W. H. Auden

A kind of hybrid of the works by Baas and Sztwiertnia described in the previous chapter, in which the artists used dust, is *The High Gloss Clock*. It is an installation made of old varnished furniture board, a clock mechanism and a pendulum made of the colorful feather-duster. The installation mechanism performs a never-ending job of wiping dust from the shiny surface of the french-polished veneer, which, despite this extraordinary care, has become anachronistic anyway.

At this point, I have to mention the entire series of *Clock Installations*, which I have been consistently expanding since 2017. The series was initiated by *A Timeless Image*, a work prepared for my first individual exhibition titled *Nothing Extraordinary*. A slightly humorous idea, based on a play of words, meanings and symbols, implemented by composing a clock mechanism with a painting hanging above it, interested me, and the desire to create was intensified by my personal sentiment for old clocks. So I decided to develop this idea and return to it from time to time. The essence of most subsequent works is more a matter of the "painterly" properties of the materials used and their meanings than a play on words. If someone would accuse me of insufficiently justifying the idea of replicating the design of an installation with a clock mechanism, just because of the sentiment and pleasure of looking at brass gears, I can assure there are more reasons. Each work in the series has a different meaning, but the common feature is the focus on the autonomy of the work by "equipping" it

with a clock. Due to this exceptionally simple action, I emphasize the distinctiveness and existence of a separate time of the work, which, in my opinion, is the basis of autonomy. An example is the already described *Timeless Painting*, in which the titular timelessness becomes a property of the image and is not dependent on the observer's assessment. And the image itself can be understood as a representation of the timeless truth that nothing is eternal, because with each touch of the clock hand the scratch on the painting deepens.

Representing time on a two-dimensional, stationary plane has been a problem that has bothered painters for a long time. The proof may be the quoted text by Kandinsky, in which he considers the formal means used in Rembrandt's paintings, which, according to him, create the impression of time. Kandinsky wrote: "Rembrandt moved me deeply. The great division of Light and Dark, the blending of secondary tones into the larger parts [...] revealed to me completely new possibilities [...] I felt somewhat unconsciously that this great divisions gives Rembrandt's pictures a quality that I have newer seen before. I felt that his pictures "last a long time", and explained it to myself that I had first to exhaust one part continuously and then the other. Later I understood that this division magically produces on the canvas an element which originally seems foreign and inaccessible to painting – time"³⁰. The described impression of time, created by strong contrasts, could be explained by the commonly felt phenomenon of entropy. Contrast is possible in an ordered system, when one area consists of dark "points" and the other area of light "points". We know from experience that in nature, over time, the boundaries between such areas begin to blur, we feel tension, subconsciously perceiving such a state as unsteady. Just like matter, thoughts and feelings also tend to mix and blur. Reflecting on this commonly known, yet constantly surprising phenomenon, I created the work Black and White.

³⁰ W. Kandińsky, *Reminiscences* [za:] *Modern Artists on Art, Ten Unabridged Esays*, oprac. R. L. Herbert, Prentice Hall Press, New York 1986, s. 29.



43. Mikołaj Kowalski, Black-white

During my doctoral studies, I created several more works from the clock series and initially most of them were to be part of the doctoral set, but eventually I decided to limit it for the proper expression of the exhibition. This is the reason, that for the planned exhibition I have chosen only the previously mentioned *High-Gloss Clock*, which contains a dust motif, and is a connection between clock installations and microscopic images.

A smooth transition to the next components of the exhibition is the *Flower Clock*, an installation that in various ways combines all the threads of my research, which is part of both the clock and electronic series. "Flower clock" is the name proposed in 1748 by Carl Linnaeus for the concept of measuring time based on the observation of the daily cycle of flowers. Such a clock is available to every nature observer who knows the opening and closing times of the flowers of particular plant species, a phenomenon that has probably been known for centuries, but was described in detail for the first time by Linnaeus. My *Flower Clock* consists of seven acoustic levitation devices of my design, in which I placed fragments of seven different flowers. Each bud opened at a different time, then was picked and flattened between the pages of the book.

These are hours symbolically encapsulated in dried flower petals that at the designated time did not close for the night. My goal was to achieve a feeling similar to the moment of



opening a book with a dried flower in it, in the winter time. *The Flower Clock* is basically Linnaeus' clock that stopped working, except that did not happen due to neglect, but as a result of special efforts. The effort to stop time is emphasized by levitation, which can only be sustained thanks to the energy added.



44. Mikołaj Kowalski, detail of the Flower Clock

Dried flowers can evoke nostalgia for summer, and they may also be associated with a herbarium, a collection of plants created to describe and catalog species. These two words, both "nostalgia" and "collection", certainly can be used to describe next works: *Icicles* and *Last Year's Snow*.



Icicles

There are many things around us that remind us of the past and the passage of time. These are often items related to personal memories, but there are also testimonies of old events important to many people, such as monuments. There are also places, which even visited the first time can give the "feeling" of the past, an example would be a staircase with worn stairs. In my opinion, stalactites are objects that are a good and universal visualization of time. As we know, they take a very long time to form and their size is directly proportional to the passage of time. Just as short passing moments that eventually combine into whole years are imperceptible, so are the minerals dissolved in water, depositing on the stalactite and constantly building it. Stalactites are also an example of the reorganization of matter, because their building material, calcium carbonate, is washed out from natural rocks or concrete structures and then deposited in a different shape. This is also a good example of something causing cognitive dissonance. You have that impression by looking at these stone icicles under the viaduct during the hot summer (icicles in summer?).

Stalactites are interesting because of their meaning, but their shapes are also interesting, so I decided to create a collection of them, saving them from destruction. They would most likely be chipped off during the renovation of the viaduct, because that's where I get them from viaducts and footbridges. So I collected them so that the time accumulated in them would not be "wasted". By placing items from the lost-and-found office at the exhibition in the Louvre, Christian Boltanski proved that every item has historical value and is a potential museum exhibit³¹. Likewise, my collection, the result of tiny geological expeditions, could potentially be a future exhibit in an Anthropocene museum. Certainly, placing icicles in wooden display cases behind glass evokes associations with an exhibition in a museum, an institution with an aim to stop time, as Maria Poprzęcka recalled in the book *Imaps*³².

³¹ *Prawda nigdy nie jest prawdziwa, interwiew with* Christian Boltanski; https://magazynszum.pl/prawda-nigdy-nie-jest-prawdziwa-rozmowa-z-christianem-boltanskim/ (accessed: 02.07.2023).

³² M. Poprzecka, Impas, Fundacja Terytoria Książki, Gdańsk 2019, s. 93.



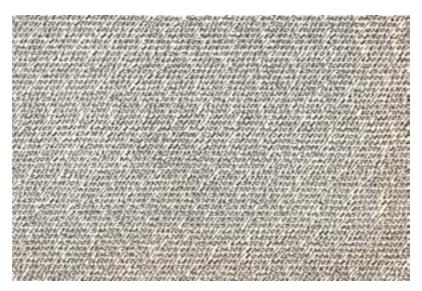
45. Tomasz Ciecierski, untitled

The process in which stalactites are formed is layering, cyclical "dripping" of the next layer. Our memory could be described similarly - each subsequent moment of "now" is "evaporated", and what is most important, the essence of experiences remains and is stored in memory. As I have already written, this happens very often, as it has been researched that "now" in our brain lasts about three seconds. The reception of each such moment consists of stimuli from all our senses. Tomasz Ciecierski's painting is a kind of extract of visual stimuli of this layering process. The painting is composed of many smaller canvases depicting simplified and blurred landscapes, landscapes placed randomly on top of each other. In one of the interviews³³, Ciecierski said that the reason for creating this type of paintings was the desire to record the time spent driving the car and show the landscapes he saw during the trip. A similar mechanism of layering and recording subsequent moments of the present can be found in Roman Opałka's work, although these are not "layers" of visual impressions. It is rather a record of subsequent moments, entirely filled with concentration on them, and in this sense it is a kind of meditation. "[...] Opałka's crazy duel with time can be understood as a creative way of deep cognition through meditation and contemplation. It is also a peculiar form of overcoming the ultimate determinants: the vegetation of a convict who does not know the date of execution"34. The consequence of implementing the idea of Counted Images is reminiscent of the actions of people obsessively documenting their lives, trying not to forget a

³³ Interwiew with Tomasz Ciecierski; https://culture.pl/pl/tworca/tomasz-ciecierski (accessed: 02.07.2023).

³⁴ B. Kowalska, Roman Opalka, Wydawnictwo Literackie, Kraków 1976, s. 65.

single moment. Some of them record all their activities, often using notes, photos, and sometimes a video camera, as Sam Klemke did, filming his life from 1977³⁵. It also happens that, as a result of an accident or illness, a person's ability to remember the past is impaired, although it is difficult to imagine, people affected by this condition live only in the present, they do not even remember what happened a minute ago. One can only imagine, that in such a situation the desire to experience the continuity of existence could lead to attempts to record successive moments of existence.



46. Roman Opałka, 1605281 - 1608286, A card from a trip, detail



47. Włodzimierz Pawlak, Journal no. 16

³⁵ The effects can be seen in the documentary Sam Klemke's Time Machine.

Last Year's Snow

I care about it as much as I did about last year's snow. I don't care because it's gone, it passed. Thanks to my work, however, not entirely. As I mentioned, I try to observe even seemingly unimportant events and phenomena embraced in generalized concepts. Phenomena that are usually put into categories, so that their internal diversity is for the purpose of convenience. Just like when someone says "I don't like art", although, while concluding that, they don't even know much about its diversity. Last year's snow is a series made from snow remnants collected every year at the end of winter, selected from sculpture exhibitions that regularly take place in ditches and lawns. You can then observe a great variety of forms, although the exposition usually lasts for quite a short time. So I decided to create a collection and preserve selected exhibits. I do this by taking the alginate impressions from the snow forms and then pouring liquid stearin, obtaining an exact copy. Last year's snow is in many respects similar in meaning to the previously described lcicles, so I will not discuss the previously mentioned issues. I will only add that the symbolic placement of snow in the museum is a good illustration of the times when we may have the opportunity to see it in nature less and less often, when water, both in solid and liquid form, becomes more valuable.



48. Henry Moore, Large Two Forms (LH 556)

The Snowman of Quotations by Oskar Dawicki is a work that must be mentioned when discussing works of art made of fixed snow. This time it is not a copy, but real snow clumped in the shape of a snowman and locked in a refrigerator. In this way, a statue was created, requiring a constant input of energy to keep it "alive". I think that although, in many respects, *The Snowman of Quotations* could be interpreted similarly to *The Last Year's Snow*, this would probably be an over-interpretation because Dawicki's work, unlike mine, discusses the human condition in a wittily literal way, and this is the artist's main area of interest. The clue is a quote from Marcus Aurelius engraved on the snowman's buttons: "Either you live here and have already gotten used to life, or you are moving to the other world and that's what you wanted, or you die, and you have completed your service. Other than that, nothing. So be of good cheer"³⁶.



49. Oskar Dawicki, Snowman of Quotes cytatów

An artist who should not be omitted when discussing the imagery of time, sculpture, snow and ice is Tomasz Domański. Domański consciously, consistently and repeatedly covered the subject of time depiction. *Monuments of Time*, as he calls his sculptural installations, were made of various materials, although he often used ice. Most of his

³⁶ O. Dawicki, I'm sorry, Raster, Warszawa 2015, s. 158.

installations were ephemeral, as the artist tried to visualize the passage of time. That is why it can be said that Domański's monuments are, in a sense, a denial of the idea of a monument. After all, a monument is, after all, something permanent, intended to immortalize and counteract the passing of time. Monuments of time should therefore be understood as an affirmation of passing, coming to terms with the way things are, or an opportunity to observe changes, similar to physical experience. As the artist wrote: "Ephemeral *Monuments of Time* honor the passing of time and, although short-lived, remain in our memory" Domański's approach is different from mine in the sense that I try to learn something about time based on small, often personal and detailed observations of existing events, while Domański in his works uses "the elements", i.e., general laws of nature, to create opportunities for observation of evanescence in general.



50. Tomasz Domański, Melting

³⁷ T. Domański, Pomniki czasu, Ośrodek Kultury i Sztuki we Wrocławiu, Wrocław 2018, s. 85.

Summary

It's time to summarize the effects of the work done on the topic of *Depiction of Time* and draw conclusions from the descriptive part. This moment is partly forced by the end date of the four-year doctoral studies because artistic explorations have no clearly defined end. Fortunately, this is also the moment when I managed to select a coherent yet diverse set of works from among all the recently created ones.

The descriptive part well reflects the process of working on the issue (with high hopes and confrontation with reality, including time), because it was created in parallel with the development of the artistic part. From the initial assumptions, through the search for a broad artistic context, an attempt to generally understand research on time in science, after the implementation of artistic works, solving workshop problems, and my own interpretation and comparison with the works of other artists.

The proposed set of works, although (as intended) it does not exhaust the topic, is, in my opinion, interesting and thought-provoking. I tried to achieve the initial assumption of showing the ambiguity of the concept of time through the diversity of works, while I managed to achieve a certain universality in the *Specks and Fluffs* series, combining abstraction with realism, the microscale with the macroscale, associations, observations and personal stories with a universal view. Therefore, I believe that I have achieved the intended goal as far as possible, and since for me both the process of creation and the final effect of the work *Depiction of Time* are valuable, I hope that the viewers will also get a similar assessment

Bibliography

Books:

Artyści o sztuce : od van Gogha do Picassa, wybrały i oprac. Elżbieta Grabska i Hanna Morawska, Państwowe Wydawnictwo Naukowe, Warszawa 1977.

Benjamin Walter, Twórca jako wytwórca, Wydawnictwo Poznańskie Poznań 1975.

Buonomano Dean, Mózg władca czasu, Prószyński i S-ka, Warszawa 2019.

Carroll Sean, Stąd do wieczności i z powrotem, Poszukiwania ostatecznej teorii czasu, Pruszyński i S-ska, Warszawa 2011.

Davies Paul, Czas niedokończona rewolucja Einsteina, Pruszyński i S-ka, Warszawa 2002.

Dawicki Oskar, I'm sorry, Raster, Warszawa 2015.

Dewey John, Sztuka jako doświadczenie, Zakład Narodowy im. Ossolińskich, Wrocław 1975.

Domański Tomasz, Pomniki czasu, Ośrodek Kultury i Sztuki we Wrocławiu, Wrocław 2018.

Dutton Denis, Instynkt sztuki: piękno, zachwyt i ewolucja człowieka, Copernicus Center Press, Kraków 2019.

Eco Umberto, Dzieło otwarte, Czytelnik, Warszawa 1973.

Gołaszewska Maria, Estetyka rzeczywistości, Instytut Wydawniczy PAX, Warszawa 1984.

Gołaszewska Maria, Zarys estetyki, PWN, Warszawa 1984.

Hammond Claudia, 70 minut na godzinę, Fenomen czasu, Carta blanca, Warszawa 2013.

Ilya Prigogine, Isabelle Stengers, Z chaosu ku porządkowi, PIW, Warszawa 1991.

Jan Tarasin: rzeczy, sytuacje i..., pr. zb. pod red. Zbigniewa Chlewińskiego, Samizdat Zofii Łoś, Płock 2002.

Kandiński Wassily, O duchowości w sztuce, Państwowa Galeria Sztuki w Łodzi, Łódź 1996.

Klee Paul, Pedagogical Sketchbook, Faber and Faber, Londyn 1968.

Kowalska Bożena, Roman Opałka, Wydawnictwo Literackie, Kraków 1976.

Krzysztof Gliszczyński, katalog pod red. Dominiki Krechowicz, Galeria Koło, Gdańsk 2002.

Larsen Jon, *In Search of Stardust: Amazing Micrometeorites and Their Terrestrial Imposters*, Voyageur Press, Minneapolis, Minnesota 2017.

Ludwiński Jerzy, Epoka błękitu, Otwarta Pracownia, Kraków 2009.

Modern Artists on Art, Ten Unabridged Esays, oprac. Robert L. Herbert, Prentice Hall Press, New York 1986.

Pierścienie czasu, pr. zb. pod red. Zbigniewa Gorlaka, ASP w Gdańsku, Wydawnictwo Uniwersytetu Gdańskiego, Gdańsk 2023.

Pöppel Ernst, Edingshaus Anna Lydia, *Mózg – tajemniczy kosmos*, Państwowy Instytut Wydawniczy, Warszawa 1998.

Pöppel Ernst, Granice świadomości, Państwowy Instytut Wydawniczy, Warszawa 1989.

Poprzęcka Maria, Impas, Fundacja Terytoria Książki, Gdańsk 2019.

Robb-Narbutt Krystiana, *Nostalgia jest gdzie indziej*, katalog wystawy, Zachęta Państwowa Galeria Sztuki, Warszawa 2003.

Spotkania z Tarasinem, pr. zb. pod red. Zbigniewa Chlewińskiego, Jacka Czuryło i Marka Pietkiewicza, Samizdat Zofii Łoś, Płock 2007.

Szulakowska Urszula, Krzysztof Gliszczyński – Autoportret à retour [w:] Krzysztof Gliszczyński – Autoportret à retour, katalog wystawy, CSW Łaźnia, Gdańsk 2007.

Tylko zepsute zegary pokazują dokładny czas, katalog wystawy, Gdańska Galeria Miejska, Gdańsk 2019.

Wells Herbert George, Wehikuł czasu, Iskry, Warszawa 1986.

Wohlleben Peter, Sekretne życie drzew, Wydawnictwo Otwarte, Kraków 2021.

Zimbardo Philip, Boyd John, Paradoks czasu, Wydawnictwo Naukowe PWN, Warszawa 2009.

Internet sources:

Artykuły

Hanhardt John G., Nam June Paik: The Late Style (1996–2006).

https://www.randianonline.

com/np announcement/nam-june-paik-the-late-style-1996-2006-grasp-the-eternity/; (dostęp: 03.07.2023)

Martin Jean, Peter Vogel's Interactive Sound Art, 2011.

http://vogelexhibition.weebly.com/jean-martin-peter-vogelsinteractive-sound-art.html; (dostep: 03.07.2023)

Parry Nye, *Peter Vogel: Contexts a Journey in Time and Space*, 2011. http://vogelexhibition.weebly.com/nye-parrypeter-vogel-contexts-for-a-journey-in-time-and-space.html, (dostęp: 03.07.2023)

Sedikides Constantine, Wildschut Tim, Arndt Jamie, Routledge Clay, *Nostalgia: Past, Present, and Future. Current Directions in Psychological Science.*

17(5), (2008) 304–307. https://doi.org/10.1111/j.1467-8721.2008.00595.x (dostęp: 24.06.2023)

Skowranek Heide, Should We Reproduce the Beauty of Decay? A Museumsleben in the work of Dieter Roth, Tate Papers no.8.

https://www.tate.org.uk/research/tate-papers/08/should-we-reproduce-the-beauty-of-decay-a-museumsleben-in-the-work-of-dieter-roth, (dostęp: 10. 09. 2022).

Step of Time Memoire (opis pracy Ja'akowa Agama).

https://artsandculture.google.com/asset/step-of-time-memoire-yaacov-agam/rQH2vhKvVCiZPQ, (dostęp: 09.01.2023).

Zdanowicz Maciej Henryk, *Pojęcie i doświadczenie czasu w polskiej sztuce konceptualnej*, Sztuka i Dokumentacja, nr 6 (2012).

 $https://bazhum.muzhp.pl/media/files/Sztuka_i_Dokumentacja/Sztuka_i_Dokumentacja-r2012-t-n6/Sztuka_i_Dokumentacja-r2012-t-n6-s141-147/Sztuka_i_Dokumentacja-r2012-t-n6-s141-147.pdf (dostęp: 05.09.2023)$

Interwiews

Krystiana Robb-Narbutt, Nostalgia jest gdzie indziej.

www.saskakepa.waw.pl/swiat-wedlugsaskiej/ archiwum/nostalgia-jest-gdzie-

indziej#utm source=paste&utm medium=paste&utm campaign=chrome (dostęp: 24.06.2023).

Prawda nigdy nie jest prawdziwa, rozmowa z Christianem Boltańskim. https://magazynszum.pl/prawda-nigdy-niejest-prawdziwa-rozmowa-z-christianem-boltanskim/ (dostęp: 02.07.2023).

Filmy i nagrania dźwiękowe

BBC Inside Science, Chatbot plagiarism. https://www.bbc.co.uk/programmes/m001gx1g (dostęp: 03.07.2023).

Peter Vogel - The Sound of Shadows (2011), Film towarzyszący wystawie retrospektywnej w SBT Gallery na Uniwersytecie w Brighton.

https://vimeo.com/59829961 (dostep: 05.09.2023).

Wywiad z Tomaszem Ciecierskim.

https://culture.pl/pl/tworca/tomasz-ciecierski (dostęp: 02.07.2023)

List of illustrations

- 51. Tkanina z Bayeux, 0,5 x 68 m, źródło: https://www.bayeuxmuseum.com/en/the-bayeux-tapestry/discover-the-bayeux-tapestry/explore-online/
- 52. Roy Lichtenstein, *Whaam!*, 1963, 172 x 406 cm, akryl, olej, płótno, źródło: https://www.tate.org.uk/art/artworks/lichtenstein-whaam-t00897
- 53. fryz bukranionowy, źródło: https://pl.wiktionary.org/wiki/bukranion#/media/Plik:Krol31 DSC0060.JPG
- 54. Robert Kuśmirowski, *Dyplom na czeladnika*, 2002, r*ysunek na papierze*, kolaż, źródło: http://biala.art.pl/publikacje/robert-kusmirowski/
- 55. Ja'akow Agam, *Step of Time Memoire*, 1989, źródło: https://artsandculture.google.com/asset/step-of-time-memoire-yaacov-agam/rQH2vhKvVCiZPQ
- 56. Ryszard Winniarski, *Gra dla jednego*, 1987, 64 x 64 cm, akryl, deska, źródło: https://labirynt.com/kolekcja-prace/ryszard-winiarski-gra-dla-jednego/
- 57. Richarada Serra, *The matter of Time*, 1994, źródło: https://www.guggenheim-bilbao.eus/en/the-collection/works/the-matter-of-time
- 58. Paul Klee, Plant, źródło: Klee Paul, Pedagogical Sketchbook, Faber and Faber, Londyn 1968.
- 59. Ai Weiwei, *Sunflower Seeds*, źródło: https://arthive.com/artists/78922~Ai_Weiwei/works/544888~Sunflower_seeds
- 60. Dieter Roth, *Gartenzwerg*, 1972, źródło: https://www.tate.org.uk/research/tate-papers/08/should-wereproduce-the-beauty-of-decay-a-museumsleben-in-the-work-of-dieter-roth
- 61. Christian Marclay, Kadr z filmu The Clock, 2010, źródło: https://vimeo.com/28702716
- 62. Paul Huxley, *Untitled No. 44*, 1938, 203 x 203 cm, akryl na płótnie, źródło: https://www.tate.org.uk/art/artworks/huxley-untitled-no-44-t13590
- 63. A: Marta Antoniak, *Time Capsule*, B: Hans Baldung, *Siedem etapów życia kobiety*, C: Ed Ruscha, *Time is Up*, źródło: A: https://www.instagram.com/p/CiAVhsdDQqc/, B:https://upload.wikimedia.org/wikipedia/commons/0/07/Hans_Baldung_-_The_Seven_Ages_of_Woman_-WGA01191.jpg, C: https://www.tate.org.uk/art/artworks/ruscha-time-is-up-p11275
- 64. Edward Ruscha, *The End*, 1991, źródło: https://commons.wikimedia.org/wiki/File:Edward_Ruscha,_The_End,_1991_1_13_18_moma_(25604583717).jpg
- 65. Mikołaj Kowalski, *Odwilż*, 2023, 3 płytki 14 x 30 cm i 3 zdjęcia 13 x 20 cm, całość 60 x 130 cm, druk lentikularny i układ elektroniczny na laminacie szklanym, detal
- 66. Mikołaj Kowalski, Farbopłot elektroniczny, 2018, oscyloskop, układ elektroniczny na desce, olej na desce
- 67. Mikołaj Kowalski, Krople, 2019, 60 x 60 cm, elementy elektroniczne, płótno
- 68. L: Zdjęcie słońca widzianego przez teleskop INOUYE P: Detal pracy Wschód Zachód, źródło: L: https://nso.edu/gallery/gallery-images-from-the-inouye P: fot. Mikołaj Kowalski
- 69. Janek Simon, *Zegarek elektroniczny domowej roboty*, 2005, źródło: http://en.rastergallery.com/prace/zegarek-elektroniczny-domowej-roboty/
- 70. Bartosz Kokosiński, bez tytułu, źródło: fot. Sławomir Toman
- 71. Zdjęcia reklamowe układów scalonych, źródło: L: https://www.csis.org/analysis/moores-law-and-its-practical-implications, P: https://images.computerhistory.org/siliconengine/1962-1-1.jpg
- 72. Gérard Fromanger, Et Toi Mon Amour Mon Coeur Ma Vie et Toi, 1978, 200x300 cm, olej na płótnie
- 73. Kadr z filmu na którym piosenkarka Björk opowiada jak działa telewizor., źródło:

https://www.youtube.com/watch?v=SNQtQWjX-sA&t=91s

- 74. Nam June Paik, TV Buddha, 1989, źródło: http://www.dreamideamachine.com/?p=26586
- 75. Peter Vogel, *Blaugrune Farbkombinationen*, 1987, 72 × 72 cm, źródło: https://www.artsy.net/artwork/peter-vogel-blaugrune-farbkomination
- 76. Peter Vogel, *Interaktives Klangobjekt 36 6 77*, 1977, 74 x 25 x 27 cm, rzeźba z elementów elektronicznych, źródło: https://www.mutualart.com/Artwork/Interaktives-Klangobjekt-36-6-77/11FAC7AFCA36BD8B
- 77. Mikołaj Kowalski, Obraz mikroskopowy 7, Cykl Paprochy i farfocle, 2022, 150 x 150, olej na płótnie, detal
- 78. Man Ray, *Dust Breeding*, 1920, 23 x 30 cm, fotografía, źródło: https://www.metmuseum.org/art/collection/search/271420
- 79. Clifford Hooper Rowe, *Woman Looking Through Microscope*, 1966, 120 x 106, olej na płycie, źródło: https://artuk.org/discover/artworks/woman-looking-through-a-microscope-206585
- 80. Reakcja Biełousowa-Żabotyńskiego, źródło: https://upload.wikimedia.org/wikipedia/commons/c/c6/Belousov_Zhabotinsky_reaction_ %284013035510%29.jpg
- 81. Christian Gottfried Ehrenberg, Rysunek, źródło: http://download.naturkundemuseum-berlin.de/Ehrenberg/
- 82. L: Joanna Dudek, Kadr z filmu *Cały świat jest moim ciałem. Moje ciało jest całym światem.* P. Yehor Antsyhin, *Tardigrades*, źródło: L: https://www.instagram.com/p/CoX9O0LtCuI/?img_index=1 P: https://www.instagram.com/p/B0qVmmvHohZ/?img_index=1
- 83. Piotr Korol, *Klucz*, 2019, 20 x 15 x 4 cm, technika własna, źródło: https://otwarta-pracownia.pl/pl/prace/6481-piotr-korol-klucz-01122019
- 84. Cornelia Parker, Exhaled Blanket, źródło: Iwona Blazwick, Cornelia Parker, Thames & Hudson, London 2014, s. 90.
- 85. Claudio Parmiggiani, Polvere, 1998, źródło: https://diccionaridempremtes.net/portfolio/polvore/
- 86. Jan Tarasin, Zapisy, 1993, 40 x 50 cm, olej, płótno, źródło: https://artinfo.pl/dzielo/zapisy-1993-r
- 87. Anna Sztwiertnia, *bez tytulu*, 2022, szkło, drewno, kurz, źródło: https://magazynszum.pl/great-patch-w-ufo-art-gallery-w-krakowie/
- 88. pył kosmiczny, zdjęcie z teleskopu Hubble'a, źródło: https://hubblesite.org/contents/news-releases/2001/news-2001-12.html
- 89. mikrometeroyty, zdjęcie Jan Braly Kihle i Jon Larsen, źródło: https://www.deccanherald.com/archives/flecks-stardust-all-around-you-1997060
- 90. Cornelia Parker, *Bated Breath*, 1997, fotografía, źródło: https://collections.vam.ac.uk/item/O84233/bated-breath-fluff-and-dust-photograph-parker-cornelia/
- 91. Vija Celmins, *Mount Holyoke*, 1987, 19 x 24 cm, akwaforta na papierze, źródło: https://www.tate.org.uk/art/artworks/celmins-mount-holyoke-ar00471
- 92. Krystiana Robb Narbutt, *Góra*, 2005, 19,5 x 14 x 8 cm, drewno, szkło, gwoździk, nitka, źródło: https://zacheta.art.pl/pl/kolekcja/katalog/robb-narbutt-krystiana-gora-2/galeria
- 93. Mikołaj Kowalski, *Zegar na wysoki połysk*, 2023, 84 x 34 cm, mechanizm zegara, płyta meblowa, szkło, miotełka plastikowa, detal
- 94. Mikołaj Kowalski, Czarno-białe, 2017, mechanizm zegarowy, płótno, farba parafinowa
- 95. Mikołaj Kowalski, *Zegar kwiatowy*, 2023, 7 płytek 17 x 15 cm całość 17 x 120 cm, układ elektroniczny na laminacie szklanym, detal
- 96. Tomasz Ciecierski, bez tytułu, 1993, 100 x 134 x 12 cm, olej płótno,

- źródło: https://zacheta.art.pl/pl/kolekcja/katalog/ciecierski-tomasz-bez-tytulu-2/galeria
- 97. Roman Opałka, 1605281 1608286, Kartka z podróży, detal, źródło: Kowalska Bożena, Roman Opałka, Wydawnictwo Literackie, Kraków 1976.
- 98. Włodzimierz Pwalak, *Dziennik nr. 16*, 1990, 135 x 190 cm, olej, ołówek, płótno, źródło:https://zacheta.art.pl/pl/kolekcja/katalog/pawlak-wlodzimierz-dziennik-nr-16-2/galeria
- 99. Henry Moore, *Large Two Forms (LH 556)*, 1971, włókno szklane, Florencja, źródło: https://www.nga.gov/features/in-situ-henry-moore-david-finn.html
- 100. Oskar Dawicki, *Balwan cytatów*, 2005, 200×80×70 cm, śnieg grawerowane metalowe guziki, zamrażarka, źródło: http://rastergallery.com/prace/balwan-cytatow/
- 101. Tomasz Domański, *Topnienie*, źródło: Domański Tomasz, *Pomniki czasu*, Ośrodek Kultury i Sztuki we Wrocławiu, Wrocław 2018, s. 47.

Depiction of Time

Reproductions of works



List of works

Specks and Fluffs

- *Microscopic painting 4, Specks and Fluffs series*, 2022, 150 x 150 cm, oil on canvas.
- Microscopic painting 5, Specks and Fluffs series, 2022, 150 x 150 cm, oil on canvas.
- *Microscopic painting 6, Specks and Fluffs series*, 2022, 150 x 150 cm, oil on canvas.
- *Microscopic painting 7, Specks and Fluffs series*, 2022, 150 x 150 cm, oil on canvas.
- Microscopic painting 8, Specks and Fluffs series, 2022, 150 x 150 cm, oil on canvas.
- *Microscopic painting 9, Specks and Fluffs series*, 2022, 150 x 150 cm, oil on canvas.
- Microscopic painting 10, Specks and Fluffs series, 2022, 150 x 150 cm, oil on canvas.
- Microscopic painting 11, Specks and Fluffs series, 2023, 150 x 150 cm, oil on canvas.
- Microscopic painting 12, Specks and Fluffs series, 2023, 150 x 150 cm, oil on canvas.
- Microscopic painting 13, Specks and Fluffs series, 2023, 150 x 150 cm, oil on canvas.
- Microscopic painting 14, Specks and Fluffs series, 2023, 150 x 150 cm, oil on canvas
- *Microscopic painting 15, Specks and Fluffs series*, 2023, 150 x 150 cm, oil on canvas.
- *Microscopic painting 16, Specks and Fluffs series*, 2022, 150 x 150 cm, oil on canvas.

Electronic Paintings

- *Drip, Drip, Drip...*, 2022-2023, 5 boards 10 x 15 cm, electronic circuit on glass laminate.
- *Thaw*, 2023, 3 boards 14 x 30 cm and 3 photos 13 x 20 cm, total size 60 x 130 cm, lenticular printing and electronic system on glass laminate.
- East West, 2023, 60 x 50 cm, wax on canvas, electronic circuit, dried oil

Clock Installations

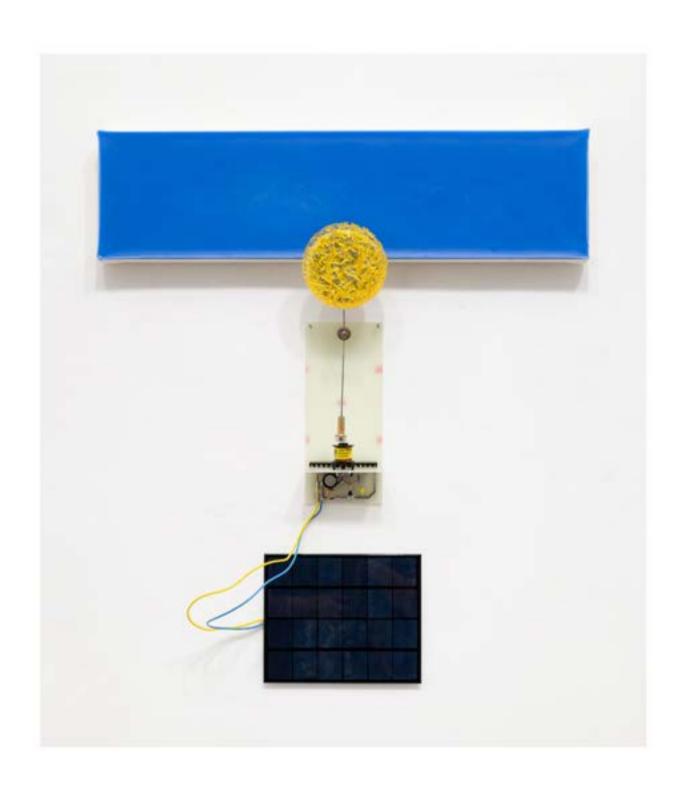
- Flower Clock, 2023, 7 boards 17 x 15 cm, total 17 x 120 cm, electronic circuit on glass laminate, dried flower petals
- High Gloss Clock, 2023, 84 x 34 cm, clock mechanism, furniture board, glass, plastic.

Icicles

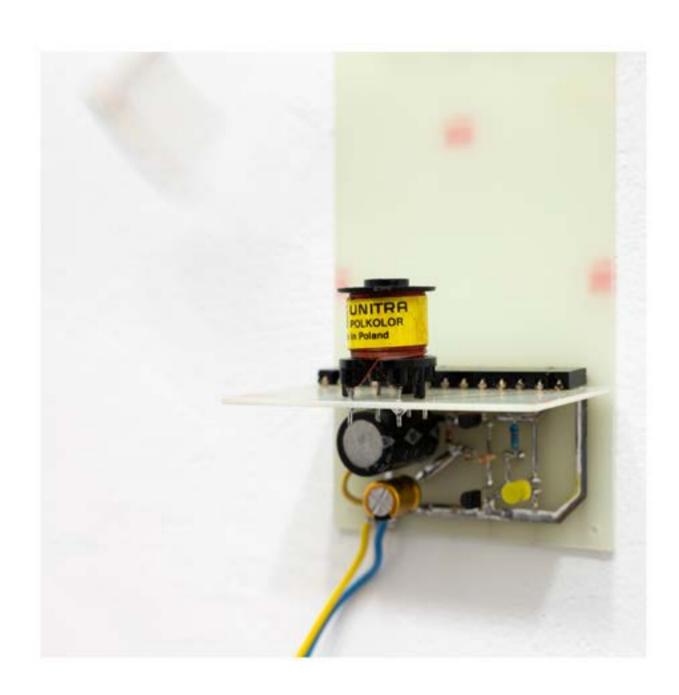
• *Icicles*, display cases 34 x 25 cm, found objects.

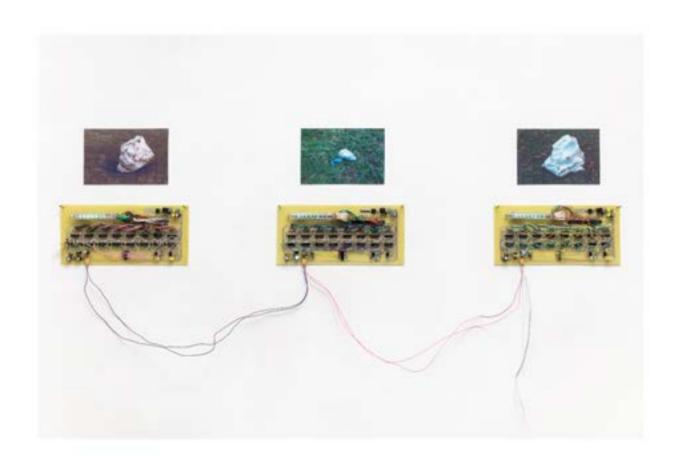
Last Year's Snow

- Last year's snow, 2022, 30 x 30 cm, paraffin cast.
- Last year's snow, 2023, 30 x 30 cm, paraffin cast.





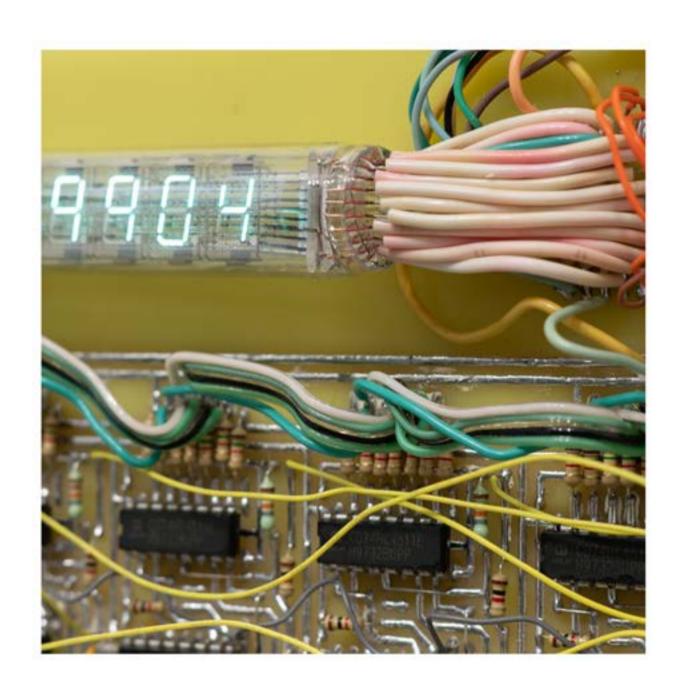


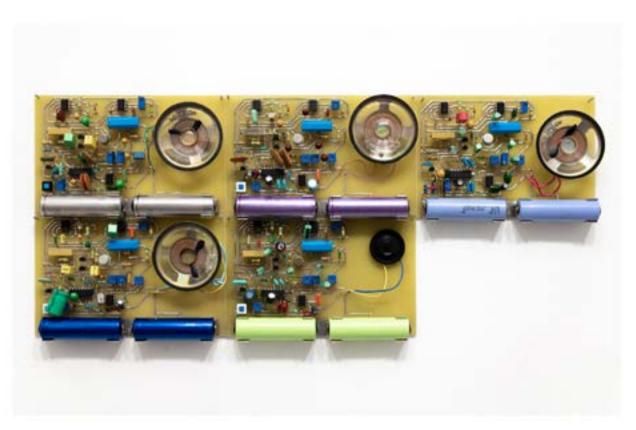






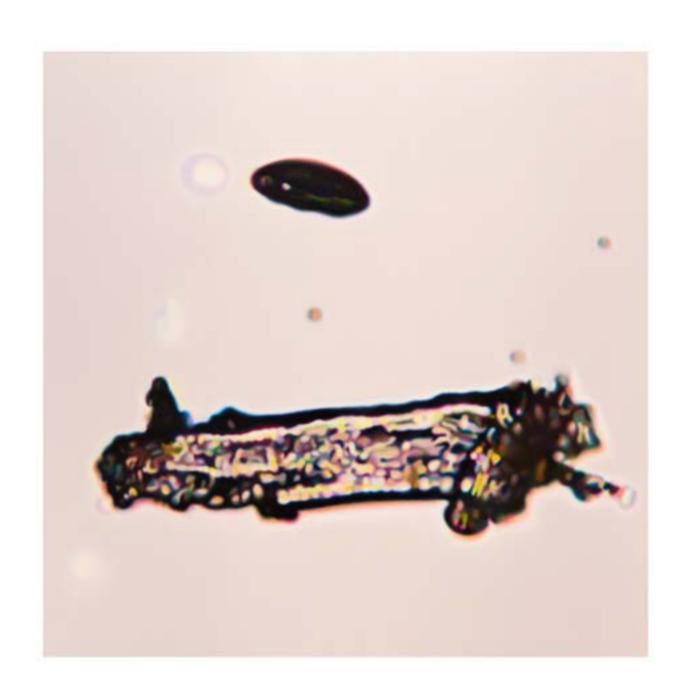






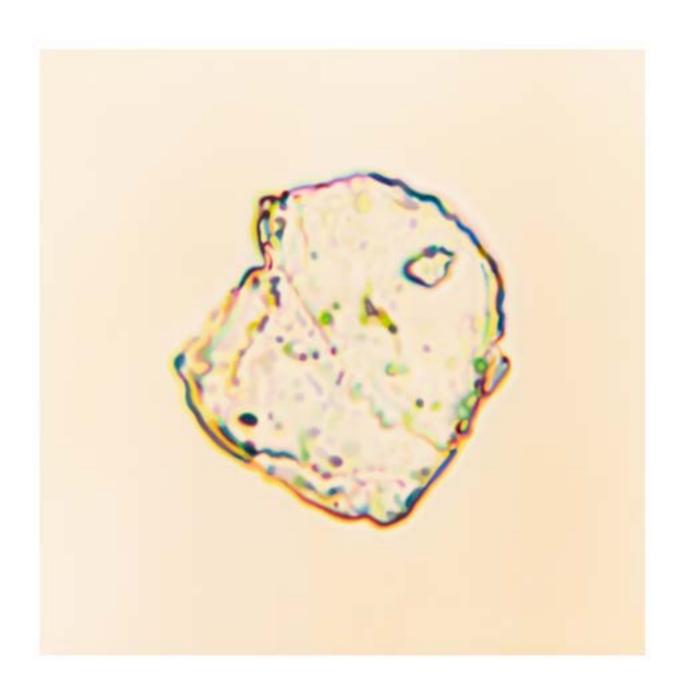


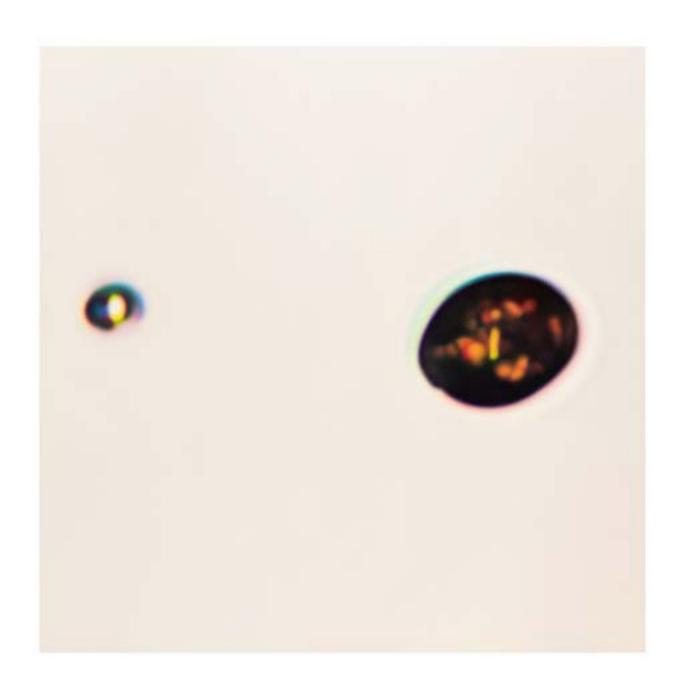
Кар, Кар, Кар...







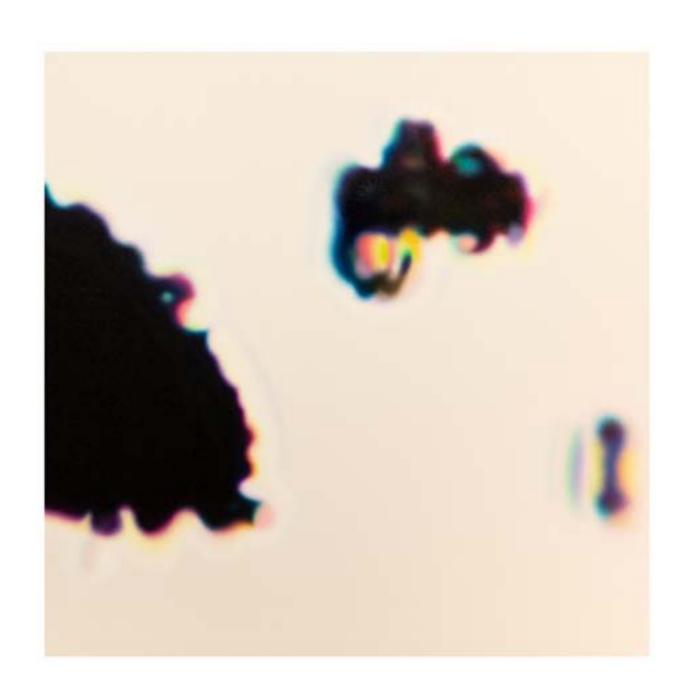




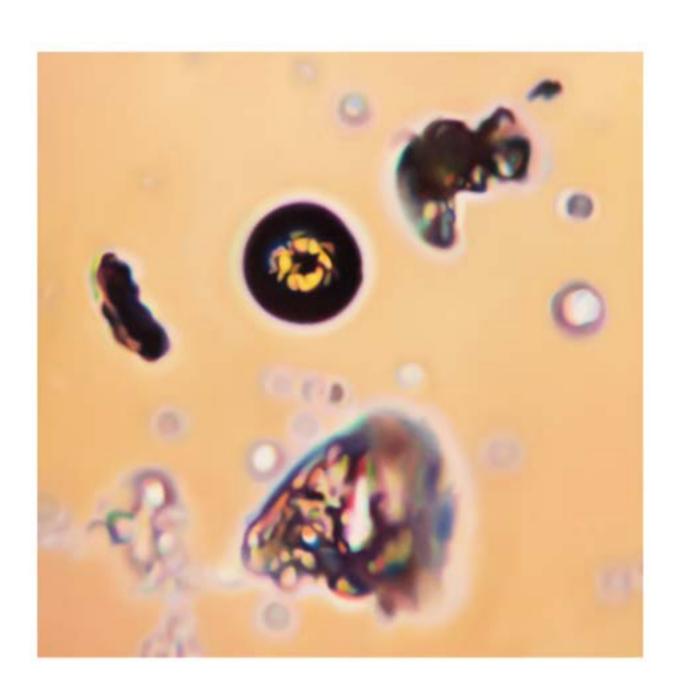




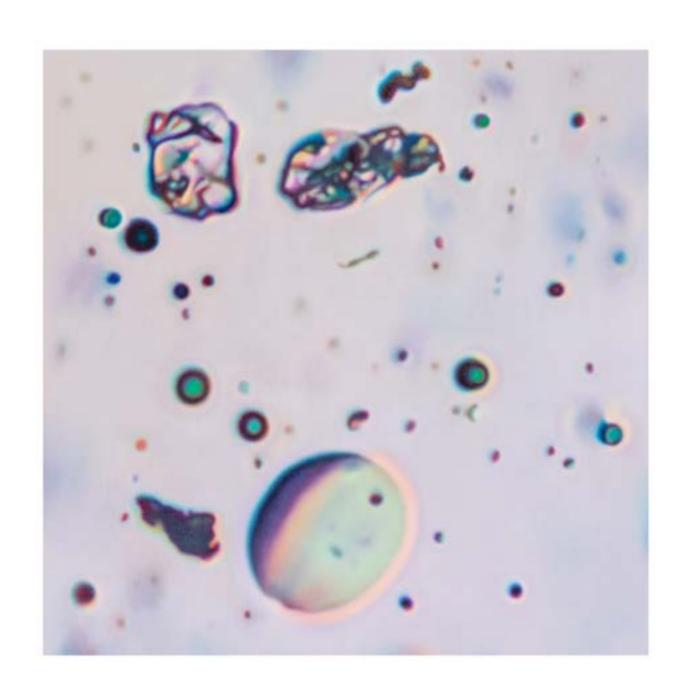


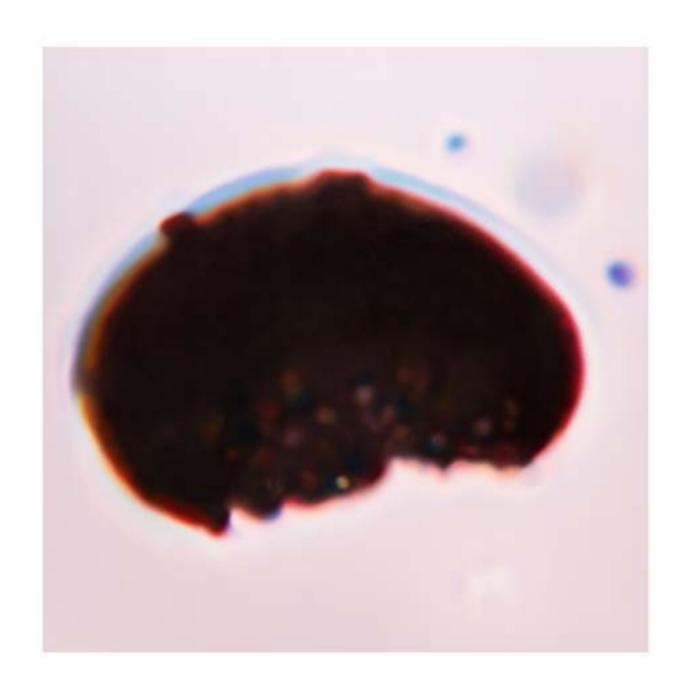


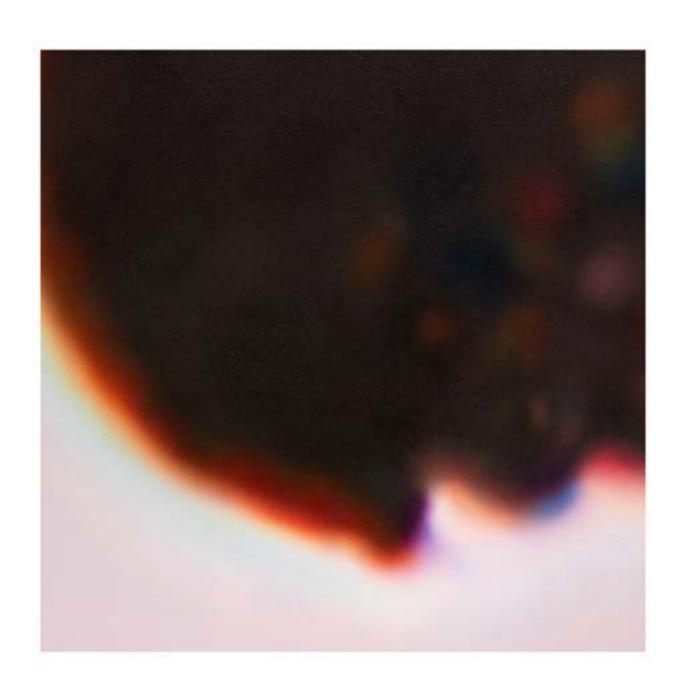


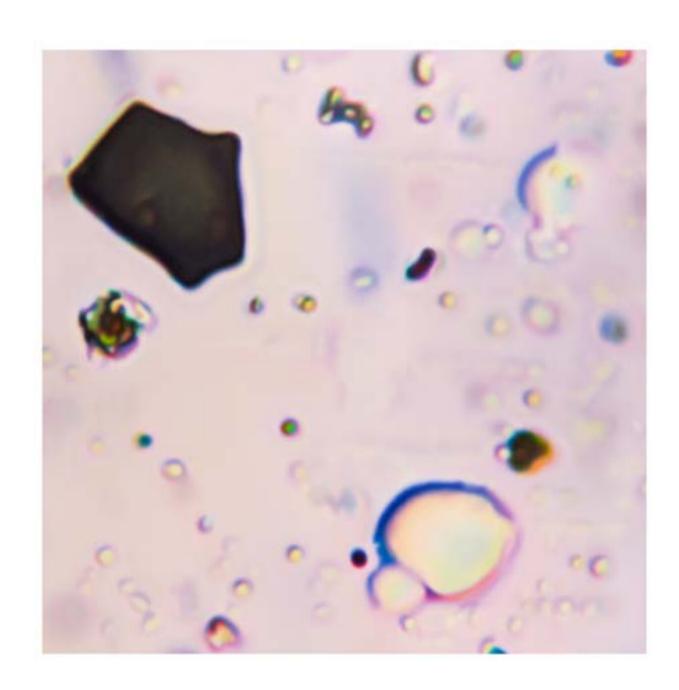


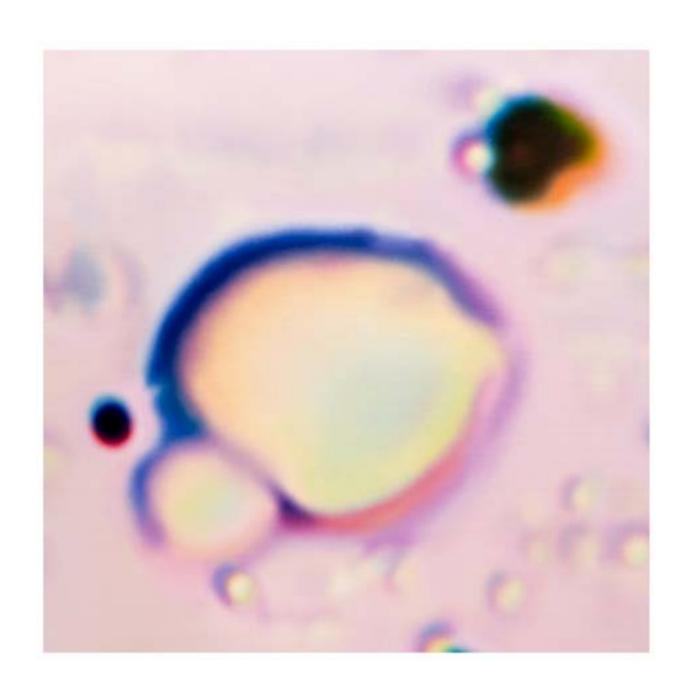




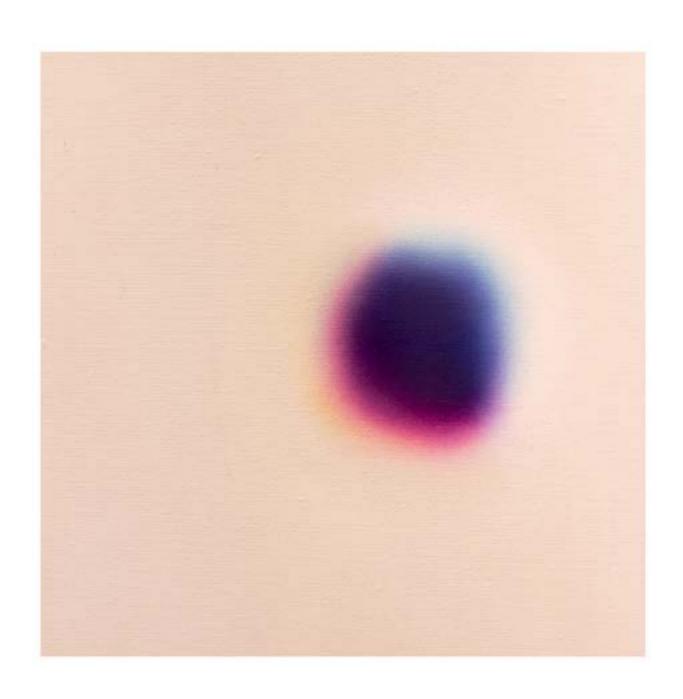






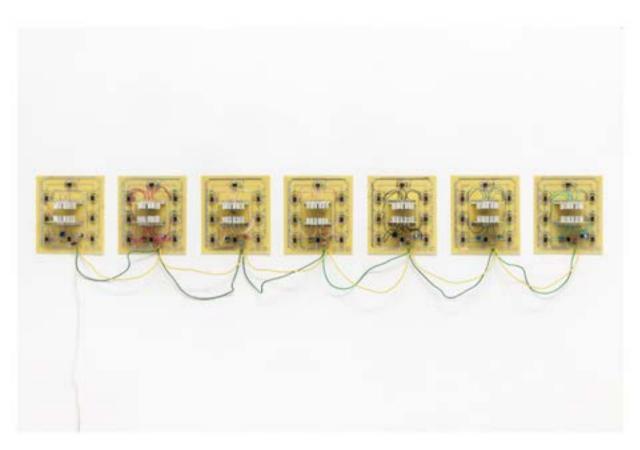


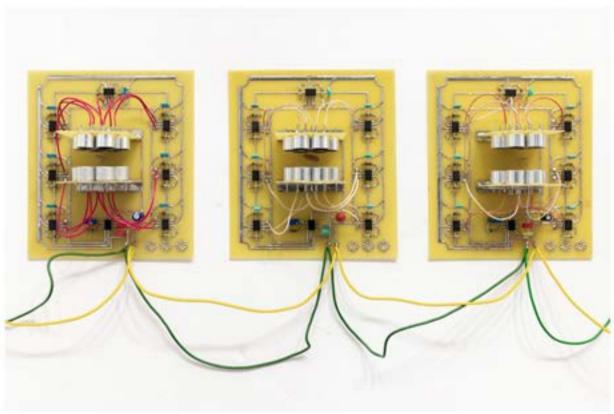


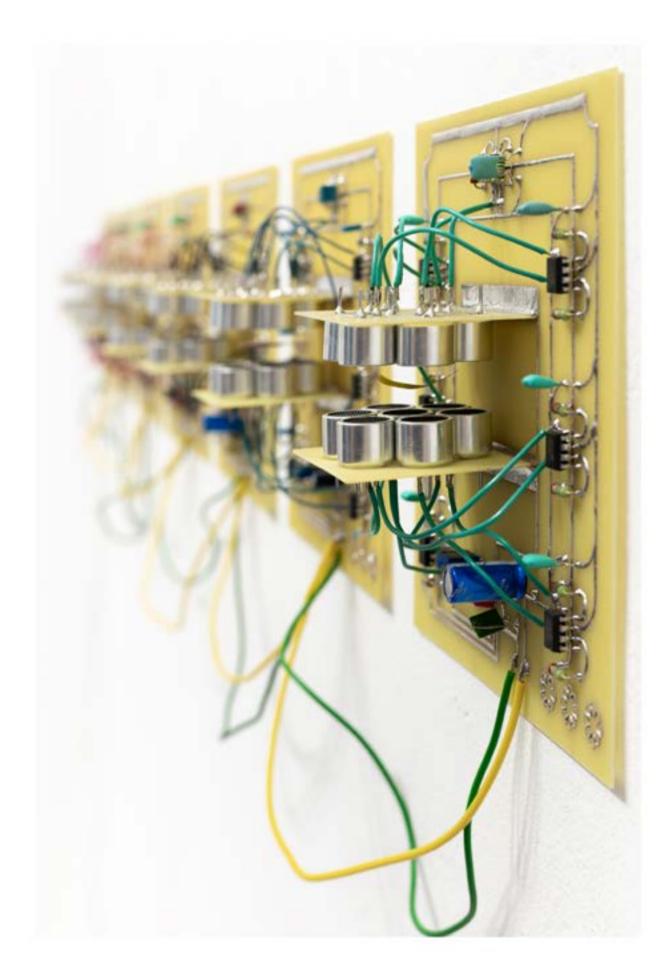




Zegar na wysoki połysk







Zegar kwiatowy





Sopelki





