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## **Bakalauro baigiamasis darbas**

Vėjas kaip tarpė santykiams bei ryšiams  
(Baigiamojo darbo pavadinimas)

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Kūrybinio  
darbo/projekto vadovas

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Pavardė)

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## Santrauka

Rašto darbe analizuoju asmeninę, kultūrinę vėjo reikšmes. Nagrinėju sąsajas tarp vėjo ir kelionių, jo santykį su ryšiais, su garsu. Skatinu skaitytoją atrasti savo kasdienius džiugesius per asmeninių pavyzdžių rinkinį. Nagrinėju, kaip vėjas gali kurti, skatinti ar slopinti ryšius, bendravimą. Aptariu, kokie būdai naudojami vėjui matuoti ir kas yra pasirenkama tam veiksmui atlikti mano kūrinyje. Pasakoju apie kūrinio techninę pusę – kaip jis veikia, kokios programos, detalės jam reikalingos, kaip mano kūrinyje vėjas tampa terpe santykiams bei ryšiams. Paskutiniame skyriuje aptariu, kaip vėjas siejasi su neapibrėžtumu dėl savo nematomumo, ir taip pat prasiplečiu apie kūrybiniame darbe naudojamą modulinę sintezę.

Siekiu, jog rašto darbe skaitytojas pats interpretuotų, kas man ir jam yra vėjas, kaip jis gali paveikti žmogiškus ryšius. Bandau vėją versti lyg kalbą, iš nematomo į girdimą, iš jusliškai juntamo į aprėpiamą protu.

## **Summary**

My thesis analyses the personal and cultural meanings of wind. I explore the links between wind and travel, its relationship to connections, to sound. I encourage the reader to discover their own daily joys through a collection of personal examples. I explore how wind can create, encourage or inhibit connections and communication. I discuss the techniques used to measure the wind and the choices made to carry out this action in my work. I talk about the technical side of the work – how it works, what applications and components it requires, how the wind becomes a medium for relations and connections in my work. In the final chapter I discuss how the wind relates to uncertainty because of its invisibility, and I also expand on the use of modular synthesis in the creative work.

My aim is for the reader of the written work to form their own interpretation of what the wind is to me and to them, and how it can affect human relationships. I try to translate the wind like a language, from the invisible to the audible, from the sensory to the mental.

## Baigiamojo darbo autentiškumo deklaracija

**Emilija Zakaruskaitė**

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(baigiamojo darbo autoriaus vardas ir pavardė)

Vėjas kaip terpė santykiams bei ryšiams

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(baigiamojo darbo aiškinamojo arba tiriamojo rašto  
pavadinimas lietuvių kalba)

Wind as a Medium for Relations and Connections

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(baigiamojo darbo aiškinamojo arba tiriamojo rašto  
pavadinimas anglų kalba)

**Patvirtinu, kad baigiamasis darbas paremtas mano pačios/-o autentiška kūryba ir jame naudotasi tik tokia papildoma informacija, kuri nurodyta nuorodose, paaiškinimuose, šaltinių, literatūros ir kt. sąrašuose. Darbas sukurtas/parašytas savarankiškai, nepažeidžiant kitiems asmenims priklausančių autorių teisių. Taip pat nei visas baigiamasis darbas, nei jo dalis nebuvo pateikta jokiai kitai aukštojo mokslo institucijai, kaip akademinis atsiskaitymas ar baigiamasis darbas.**



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(baigiamojo darbo autoriaus  
parašas)

## Introduction

"Wind is the movement of air relative to the Earth's surface from an area of high atmospheric pressure to an area of low pressure."<sup>1</sup> And what is wind to me? Maybe it is a way of living, a way of exploring, a way of searching? Myself, others, joy? Everyday pleasures?

Maybe the wind is not only the accumulated physical energy that pushes one forward, or prevents one from moving in the desired direction, but also the psychological, spiritual energy of other people who propel one forward? Maybe the wind in the hair is just a crumb of happiness?

How much can be contained in the meaning of wind? How does wind create connections, what is its relationship to sound, to people, to relations? How does it relate to travel? How is the wind captured, observed? How does wind relate to uncertainty?

Nota bene: in this essay I am discussing the positive meanings of wind, despite the fact that wind not only creates but also destroys. Despite the scientific and literary sources used, this work is about personal experiences, so I am emphasising the good side of it.

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<sup>1</sup> „Vėjas“, Lithuanian Encyclopedia, 2025, <https://www.vle.lt/straipsnis/vejas/>.

## 1. About everyday joys

As far as I remember myself, at least since K. told me that the most important thing in life was to be happy, and everything else goes after that, at least since I started to live differently, I wanted to share the everyday little things with the people close to me. Look at the magnificent clouds today, the beautiful sunshine, the beautiful moon, the pleasant evening and sunset, I showed V. some memes and he smiled, with R, A. and V. made cinnamon buns, V. came to comfort me and brought me a Japanese sweet (he said it was one of his favourites), I was able to give him a hug, I had a long hug with V. a little while after he had calmed my fears, J. and I played a computer game again, R. and I went rail-watching, I walked around the extremely beautiful Vilnius, I watched the street in the evening in the studio, and R. told me for the second time how he used to smoke on that rooftop when she was at school, and how close you can see the people on the hill of Three Crosses - she'd have to bring a telescope, I gave V. some sweets, and he offered me some new ideas and technologies to try out, E. made cheaper coffee in a cosy café in Žvėrynas, D. and I talked about our days, and K. gave M. and I each a cup of moomins. I look out of the window and see four moons. I share it with V., J., and someone else, because it is so beautiful. The reflections of the city in the bright sunlit lake start to appear in my mind, even though it's the second to last day there, you say you forgot your camera and the colours look so realistic with that. V. closes her eyes in her office when the sun shines more strongly, and lets her face enjoy the sunlight. Just like me, wherever I am, I like to let my face go to the wind, to close my eyes, to feel the wind on the skin of my hands.

I think about what joy is and how to find it every day. Joy is loving someone, watching trains, eating a dessert that has been gifted to you, smelling the scents and catching the wind, giving you presents and trinkets (sweets, badges, glitters, words). It is a joy to be surrounded by people who carry warm and open hearts. It is a joy to notice something very tiny and small every day that warms the heart. The wind, the sun, the moon, the stars, the snowdrop's blossom, the reflection of the city in a brightly sunlit lake, the sound of the calm sea by the pier, the smiling face of a loved one. It is a joy, and what is more, a great pleasure, to listen. It is also a window into the creativity of life, according to D.<sup>2</sup> These are some of the small things, and maybe even big things, that inspire not only to create, but to go further in general.

On that occasion, I made 8 cups for the wind directions and drank tea with people close to me. Some of them are wider, reflecting the main wind directions - north, south, east and 10 west; some of them are narrower, reflecting additional wind directions - northeast, northwest, southeast and southwest.

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<sup>2</sup> David George Haskell, *Sounds Wild and Broken* (Penguin, 2023), p. xiv.



1. Photo of 8 cups for the wind directions. Personal archive

## 2. Touch of the wind

The wind does not exist until an object touches it. Not until something defines them, until a second, or maybe a third, factor or object appears. L. also seconds me when she says that wind sounds are created by the vibrations caused by friction when the wind moves against resistance, so we can think of the intertwined branches of a forest or the curves of a tunnel as a natural instrument.<sup>3</sup> She even says that plants give wind a voice and that the movement of plants "visual manifestation of the reality of wind" - helping people to understand the invisible power of wind.<sup>4</sup> When the wind is particularly strong, it creates a wind howl, reminiscent of the Lithuanian story about the wind in a barrel. It tells how a blind old man is guarding the barrel with a plug, but when he is rattling it, he accidentally opens a hole and the wind escapes, blowing at crazy speeds.<sup>5</sup>

## 3. Instruments of the wind

The wind harp was invented by the Greeks - the word "aeolian"<sup>6</sup> comes from the Greek, Aeolus was the god of the winds in Greek mythology<sup>7</sup>. The wind harp is usually either just an ordinary harp taken to a windy area (e.g. a beach or a hillside, a balcony or a specially designed windy place) or a specially made wooden (or even reused cardboard) box, with strings for a guitar or just a simple fishing line. It is also important to mention the two bridges which, probably like the case with guitars, hold the higher tension and thus make it easier to

<sup>3</sup> Louise M Pryke, *Wind* (Reaktion Books, 2023), p. 69–70.

<sup>4</sup> *Ibid*, p. 40

<sup>5</sup> Dainius Razauskas, *Vėjūkas. Lietuvių vėjo demono vardo ir įvaizdžio rekonstrukcija, atsižvelgiant į vieną skitų atitikmenį (Osetinų Wæjug / Wæjyg)* (Vilnius: Lietuvių literatūros ir tautosakos institutas, 2004), p. 88-89.

<sup>6</sup> „Eolinis - reikšmė“, Tzz.lt (Dictionary of international words, 2019), <https://tzz.lt/e/eolinis/>.

<sup>7</sup> „Eolas - reikšmė“, Tzz.lt (Dictionary of international words, 2019), <https://tzz.lt/e/eolas/>.

produce the sound. The wind, in the context of this instrument, was seen as a force connecting the natural and the divine worlds, and for the Romantics, this instrument reflected man's goal of harmony with nature<sup>8</sup>. The music created by the wind can be described as the music of chance - it has no logic, no beats, no definition. These sounds only come about because the wind touches them, taking the harp to a more open place.

The wind harp's strings catch the wind's breath. The wind is invisible, but as soon as it touches the instrument's tiny strings, it stirs the cilia and their hairs against the ear. The cilia react to the vibration with a vibration that is inaudible to us - our ears are listening too. The wind vibrations are picked up by the hair cells and transmitted to the brain via the cochlear nerve. The vibrations turn into sound<sup>9</sup>. I had made a wind harp when I was away from home at the Kilpisjärvi Biological Research Station in northern Finland, but V. was moving through the mountains so fast that I didn't even have time to take the harp out (and I was so eager to hear if it worked, dreaming about hearing the sound of it). My wind harp test used a found box, fishing line, pins to secure the line, and felt-tip pens and pencils as bridges. Maybe one day I will rebuild the harp and wind will let it to be heard. And the same place will never be the same again. Looking back on those days, the most important thing is that I managed to make connections. To enjoy the reindeer that live there, the delicious lunches, breakfasts and dinners, the new acquaintances, the kota (the Finnish name for a small tipi-like house with a stove inside) and the conversations around the fire, the delicious pancakes with Arctic cloudberry made by the professor.

The wind organ reminds me of the story about the wind in the barrel, about the roar when the wind is spinning unstoppably; it makes me think about the possibility of hearing and understanding the invisible wind. The wind organ may sound majestic, but in my reality it was just a simple plastic deposit water bottle with a carefully cut and measured hole according to the instructions of the French creator Didier Ferment<sup>10</sup>. Simple as it was, it gave the wind a chance to play, to groan. Once it had the right angle and wind speed, it began to buzz softly. The wind only allowed to be heard when I was at the Nida Art Colony, standing on the first steps going down to the beach. In Vilnius, I never managed to catch it, it never let itself to be heard. As I became interested in Lithuanian mythology, I also started thinking about how Lithuanians used to believe that the wind was the howling soul of a person who had died an unnatural death (e.g. a person who had frozen to death, or hanged himself, or had been buried

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<sup>8</sup> Louise M Pryke, op. cit., p. 69-70

<sup>9</sup> David George Haskell, op. cit., p. 22-24

<sup>10</sup> Artist Didier Ferment's website, „Plastorgan“, [www.ciel-libre.nnx.com](http://www.ciel-libre.nnx.com), <http://www.ciel-libre.nnx.com/old/ukplasto.htm>.

improperly). It was also believed that storms propheted the onset of war, the death of an evil person or a witch<sup>11</sup>. Even though I know clearly that it is just wind, that it is just a plastic bottle with a hole, and that it is just the wooden staircase of Nida Beach, I still find myself thinking that something is howling and growling in pain. Something that I can hear the pain of but will never see.

#### 4. Things, wind chimes

In 2023, I started collecting things so that I wouldn't forget that something happens every day. I collected things, wrote about journeys and drew maps of places. Then I collected some of the objects and put them on photographic paper with maps and notes, and then I gave all the objects to the wind by constructing a wooden frame with branches and tying the found objects to a thick, transparent fishing line. I called the piece "link vėjo lengvėjo" ("towards the wind it's easier") . It was meant to be a place to be with myself, to see and hear an invisible touch, to be towards the wind and wait for the wind to blow away heavy thoughts. It was to be a wind instrument, the beauty of whose non-canonical notes could be enjoyed by anyone who visited the Titanikas balcony. Some things were blown off into the city by the wind. With the rest of the objects I created an installation interpretation on a clothes rack in the group exhibition ICamp`as at the LMTA Sluškų rūmai on 20 June 2024<sup>12</sup>, in which I considered the person who came to the installation as a gust of wind, a touch that could move the object. Later on, I simply said goodbye to some of the objects. And for the last time, I showed the installation in a solo exhibition "travels and wanders" at Artifex Gallery in January 2025<sup>13</sup>.

Wind chimes are a set of sticks, tubes or shells that sound when moved by gusts of wind (but they can always be moved by a human being, as is the case with my work). But for Southeast Asians, wind chimes have never been just a decorative element. They were in fact a warning of coming storms, typhoons, tsunamis<sup>14</sup>, not forgetting that in various ancient cultures wind chimes had a protective religious function<sup>15</sup>. According to L., the belief that the sound of wind chimes brings good luck and scares away evil spirits is believed to have an

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<sup>11</sup> Dainius Razauskas, op. cit., p. 40

<sup>12</sup> The exhibition was part of the event "Farewell to Sluškai" organised by the Lithuanian Academy of Music and Theatre Students' Union.

<https://www.facebook.com/photo/?fbid=480693467818235&set=a.175025118385073>

<sup>13</sup> Viktorija Balkutė's photo report from the exhibition:  
<https://artnews.lt/emilijos-zakarauskaites-paroda-keliones-ir-klajones-vda-galerijoje-artifex-118526>

<sup>14</sup> Anthony Boyadjian, „History of Wind Chimes,“ Wind Chimes Australia, September 29, 2021,  
<https://windchimesaustralia.com.au/history-of-wind-chimes/>.

<sup>15</sup> Louise M Pryke, op. cit., p. 143

ideological link with the sound of the bells in the call to prayer in Christianity<sup>16</sup>. Maybe by building a tent-like structure for the wind, I was also building a refuge for myself, a quiet refuge from my own evil spirits, out of found objects? Maybe I was waiting for the wind to be the one to blow away the heavy thoughts? Were things a silent reminder that life was happening and I was going through it?

In the solo exhibition, a man approached the last interpretation of the installation "link vėjo lengvėjo" and began to talk about how he used to take pictures of things on the border with Russia near Nida. He was probably also trying to remember the days, to record the events of the environment, and to weave it all into a web with a deep, invisible, endless story. My work has become a space where an inner dialogue can resonate through the interaction of sound and objects. Invisible stories are deposited in the audible notes, and when a common sound emerges, a network opens up that connects all the objects into one big narrative.

## 5. Journeys

I am thinking about what a journey is. It is changing places, moving from one space to another - with or without meaning, or finding (losing) it along the way. It is a movement like the wind, which is constantly bumping into something and appearing somewhere else. It appears in our consciousness because we choose to define it verbally, we choose to define it as an atmospheric phenomenon. Journeys exist because we choose to take them. Travel and wind are a temporary, intermediate state of weightlessness between here and there - like a window separating the outside from the inside. Weightlessness is a vague and indeterminate presence.

I wonder why I am travelling and looking for the wind in different places. I keep waiting for it to hit my face, my hands, my skin, my clothes. During my journeys, I keep bumping into the everyday details, souvenirs, memories, catching the wind and the joys of the cities I visit. I travel in different ways: buses, trolleybuses, trains, cars, feet. When I bypass my human time, when I am not travelling on foot<sup>17</sup>, I feel the wind rushing through the open window, from the rush of a train, car or other transport. R. talks about walking, but she sums up the purpose of all my wanderings in her own words, and the best result: "The random, the unscreened, allows you to find what you don't know you are looking for, and you don't know a place until it surprises you."<sup>18</sup>.

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<sup>16</sup> Louise M Pryke, op. cit., p. 153-154

<sup>17</sup> Vitalij Červjakov, „Walking as a pretext and space in contemporaneity“, *Lituanistika* (Vilnius Academy of Arts, 2022), <https://www.lituanistika.lt/content/95295>.

<sup>18</sup> Rebecca Solnit, *Wanderlust: A History of Walking* (London: Verso, 2002), p. 11.

According to the British astrobiologist L., wind and ocean currents have created an 'invisible geography' that has influenced where and how early trade and globalisation took place<sup>19</sup>. The wind carried and still carries people, because it made it possible to raise sails and for travellers and their cultures to explore new horizons<sup>20</sup>. The wind carries seeds, thereby spreading the space occupied by a single plant or even changing its (usual) location (let's say, if a plant is an annual and the wind carries the seeds further away, it will never grow in the same place). The wind carries seeds, dust, pollen, crumbs, rubbish, hair, voices, and a whole host of other objects in this world.

## **6. An insert about the artwork**

The idea of the work combines my relation with the wind and my relations with people. I formed a connection with the wind because of my life in Klaipėda, my interest in mythology and some mystical, inexplicable attraction that invited me to admire the wind as it is fluid, invisible and undefinable. My relationships with people close to me are characterised by everyday joys - I want them to know that they are the coincidences that illuminate my daily life. As I mentioned before, I have been interested in, searching for, testing the ways in which the wind changes and affects sound, constructing and testing wind instruments such as wind organs, wind harps or wind chimes. My piece, called "vėjoryšys" (connectionsthroughwind), consists of a small device that measures the wind, which is in the hands of a person close to me, and sends the speed of the wind to a receiving device, which is connected to a computer, and its signal influences the sound that is heard. It all happens in real time during the opening hours of the exhibition and the participants in this work carry and use the device when they want to (not necessarily during the opening hours of the exhibition). However, the participants in my work do not know each other exactly, they can only suspect, infer and guess; perhaps by sharing their experiences with each other, they can find out what is behind the abbreviated letters. I don't keep track of the participants' whereabouts, I have no idea where they are. For their convenience to roam and wander freely, I have chosen a GSM connection for the transmission of messages. In the instructions, which are in the appendix of this paper, I wish the participants to find and experience everyday joys for themselves, and I have used a little of R.'s book "The Art of Noticing" for inspiration.

The device consists of the SIM800L module, a capacitor next to it (to prevent the module from spiking when sending messages), a voltage converter (to adapt the current to the

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<sup>19</sup> Louise M Pryke, op. cit., p. 118

<sup>20</sup> Louise M Pryke, op. cit., p. 15

SIM800L at the correct strength), and an Arduino Nano microcontroller board (which acts as an intermediary between the power source and the SIM800L module, and also as the brain that sends instructions to the SIM800L on what to send and how often to send it), a measuring part (piezo element), wires and a plexiglass case (the shape of which is taken from a stone found while walking), and a carabiner for easy carrying. An external battery (powerbank) is used to charge this device, which I provide (but if a person wants to use his/her own, he/she can do so).

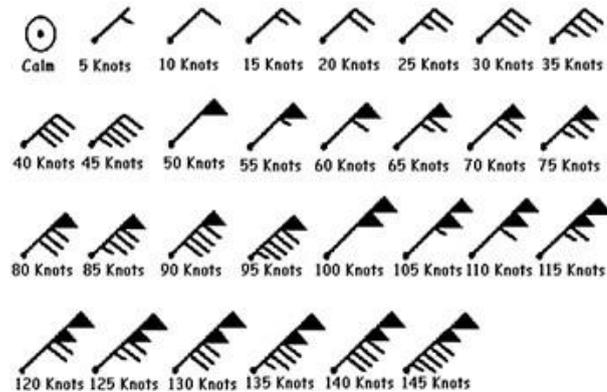


2. Photo of the sender devices. Personal archive

The receiving device is made up of the same components, but does not use measurement components and is connected to a computer rather than an external battery. The Arduino "brain" application under the same name uses several different codes, developed by different internet users, one to measure voltage (in my case, applied to wind speed/strength) and the other to send/receive messages. The values received by the receiver are passed to the PureData environment (an open visual programming language for creating interactive works), where they are converted into MIDI data and then passed to the VCV Rack application (an open source application for modular synthesis - where sound is extracted using modules that control different parameters) via the loopMIDI application (a program that allows the creation of virtual MIDI sockets). The VCV Rack program contains four voices that I have created, whose different parameters are altered by the strength of the wind on different people's devices (each device is assigned to a different voice with different parameters). The wind chimes and wind harps mentioned earlier are classified as chance music, and the synonym aleatoric music is also used. Modular synthesis in my case also offers a lot of coincidences, its wires connected to one or another parameter of the module can drastically change the sound and this is the possibility for a chance in music to happen.

## 7. How to catch the wind

When the branches are torn off by stormy winds, they become sticks that fit on maps, in various broken shapes - a straight branch with a protrusion or two, with a triangular protrusion. In English, such lines are called windbarbs. The more additional protrusions, the stronger the wind.



### 3. Graphical representation of wind direction and speed in the form of windbarbs

Wind is measured in metres per second (or kilometres/miles per hour) or knots. A knot is a unit of measurement equal to one nautical mile per hour, or 1.852 kilometres per hour. It refers to the measuring device used by early navigators to measure the speed of a ship. Such a device consists of a wooden, weighted, triangular drag device, stationary at sea, and a rope on a spool, which is unwound as the ship sails away from it. The rope is separated by equally spaced knots which act as markers. On hearing the order, the sailor on watch at the stern checks how many knots of rope have fallen into the sea over a period of time and thus determines the ship's speed in knots<sup>21</sup>. But the knots also have a mythological significance - it was believed that people practising magic could control the wind by tying special knots, and that if they were untied slowly, the wind would be released<sup>22</sup>.

Anemometers are used to measure wind speed, and weatherwanes are used to measure wind direction. The word anemometer is derived from the Greek anemo meaning wind and metron meaning measurement<sup>23</sup>. Anemometers come in different types - ultrasonic, cup, hot wire, propeller. The Lithuanian Road Administration's measuring stations, as far as I have generally seen them, are of the ultrasonic type. My work uses an unconventional way of measuring wind strength - it is not very accurate in terms of speed, but it is sensitive enough to wind strength. I use a piezo cell connected to an Arduino microcontroller, which measures

<sup>21</sup> „Knots: Measuring Speed at Sea,“ Royal Museums Greenwich, 2024, <https://www.rmg.co.uk/stories/topics/knots-measuring-speed-sea>.

<sup>22</sup> Louise M Pryke, op. cit., p. 67-69

<sup>23</sup> Louise M Pryke, op. cit., p. 19

the voltage resulting from the cell's vibration in the wind. This data is transformed in real time into sound parameters - wind strength changes the timbre, pitch and rhythmic structures of the sound. This solution allows the wind to become the real author, while I am only a mediator between nature and the listener.

Another tool that falls into the category between decoration and measurement are weathervanes. They are often found on the roofs of buildings and indicate the direction of the wind. Around the Curonian Spit, weathervanes were used to mark the fisherman's place of origin, to prevent him from fishing in foreign waters, but over time they have also become a symbol of decoration, with fishermen trying to beautify the weathervanes. According to A., weathervanes are most often found in "wind-blown places" - where there is a need to show the direction and strength of the wind - the wind is important not only for fishermen (whether fishing will be successful), but also for farmers (it brings rain, dries out the land). However, some of the weathervanes are located in places where, at least in my and A.'s opinion, the wind may seem unimportant at first sight, e.g. in cemeteries<sup>24</sup>, on the roofs of the churches.

## **8. Connections through wind. Communication**

Wind connections are not only about journeys, but also about the (in)visible voices and words they carry. Sound waves in the air travel faster in the wind - words trapped in the wind travel further distances. "Wind gradient" is the term used to describe the amount of influence the wind has on sound quality and propagation. I never thought of the wind as revealing or hiding voices. We seem to be shouting to drown out the ambient sounds, to drown out the wind. Ordinarily, low sounds are more effective in long-distance communication because they bypass obstacles and are less vulnerable to wind turbulence than high sounds. However, there are situations, such as in the Rocky Mountains in Colorado, where there is a constant wind and coniferous forests, where circumstances force red crossbills and moose to train their voices to higher pitches.

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<sup>24</sup> Arūnas Kazys Kynas and Lithuanian SSR State Art Institute, „Vėjarodžių motyvai senoviniuose lietuvių geležiniuose kryžiuose“ (1969).

<sup>25</sup> Louise M Pryke, op. cit., p. 34

wind. Ordinarily, low sounds are more effective in long-distance communication because they bypass obstacles and are less vulnerable to wind turbulence than high sounds. However, there are situations, such as in the Rocky Mountains in Colorado, where there is a constant wind and coniferous forests, where circumstances force red crossbills and moose to train their voices to higher pitches.<sup>26</sup>

Not only are the conversations between humans and animals carried by the wind, but plants and trees have a unique system of direct communication that comes from air currents - they use the gases in the air to transmit wind from one organism to another<sup>27</sup>. Socially, the sails of windmills were used for communication between settlements - the sails of windmills told what was new in a village: a death, a birth, a wedding, and the removal and addition of sections of sail could define details such as age or gender. <sup>28</sup>

In the case of my work, the SIM800L module is used with SIM cards that use a 2G connection<sup>29</sup>. Different ideas were considered, radio, LoRaWAN communication, internet (wi-fi). In the end I used GSM as the network that covers the most space and is therefore the least restrictive for the carrier of my work<sup>30</sup>. Communication, like the wind, is invisible. I do not see the sender, and the senders do not see the receiver (me). The wind changes the sound in my work. It allows me to reinterpret its frequency, timbre, sequence speed, other parameters. It allows me to reveal (or hide) one or other characteristics of the sounds I create. The wind carries sounds, and the GSM network carries messages with measured wind speed.

## 9. Uncertainty

For the sound part of my work, I choose to create my own sounds. I choose modular synthesis, which allows me to create a sound from scratch and allow it to modulate, to change indefinitely. Just like the wind, which, according to L., is invisible to the naked eye, exists in many different forms, and whose behaviour is unpredictable<sup>31</sup>, and, according to S., perhaps the most variable of all natural phenomena<sup>32</sup>. In modular synthesis it is possible to create a self-generating musical sequence. What I create can be considered a generative sequence, but

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<sup>26</sup> David George Haskell, op. cit., 81-86

<sup>27</sup> Louise M Pryke, op. cit., p. 35

<sup>28</sup> Louise M Pryke, op. cit., p. 120

<sup>29</sup> Last Minute Engineers, „Send Receive SMS & Call with SIM800L GSM Module & Arduino,“ Last Minute Engineers (Last Minute Engineers, August, 2018), <https://lastminuteengineers.com/sim800l-gsm-module-arduino-tutorial/>.

<sup>30</sup> From consultations with VDA Design lab's electronics and robotics specialists for practical student training

<sup>31</sup> Louise M Pryke, op. cit., p. 12

<sup>32</sup> Sara Borriello, „The Mutability and Ambiguity of the Wind. What Art for a Quasi-Thing?,“ *Lebenswelt Aesthetics and Philosophy of Experience* 22, no. 22 (September 3, 2024), <https://doi.org/10.54103/2240-9599/25505>, p. 43.

a lot of the sound is influenced by my decisions about what sounds make up the sequence and also how the wires are connected in VCV Rack. It's a musical sequence whose parameters are altered by the wind in the places where the close people I choose to be located, which changes with time. In this piece, the variable is not just the wind, but it is also the people I have chosen and the places they have chosen to be, which only they know. The modular synthesis here acts as a metaphor for social relationships - just as modules are wired together and the output of one module becomes the input of another, so in people's lives our decisions and presence affect each other. The wind in this system is like an element of chance, reminding us that neither in social relations nor in creation can we ever control everything.

Wind, like modular synthesis, depends on or is measured by a number of parameters. In the case of wind, these are most often: intensity, season, location, direction and origin (these are the reasons for the names of wind directions<sup>33</sup>, also found in the Lithuanian language, such as North, South, East, West). In my case, modular synthesis is a tool to create something undefinable within definable boundaries. We define wind as the movement of air in relation to the Earth's surface, but as L. said, it is invisible to the naked eye. Modular synthesis is visible, but I will never fully grasp it (as I probably will many other things). I would like to mention here V.'s point from the interview that "a common joke in the sound design/synthesizer-loving, etc. communities is that nobody fully understands all the nuances of FM."<sup>34</sup> FM is frequency modulation synthesis, in which the frequency of a waveform is changed by modulating its frequency with a modulator.

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<sup>33</sup> Ibid, p. 43

<sup>34</sup> The idea comes from a conversation with Dr. Vygintas Orlovas, thanks to whom I discovered modular synthesis as a tool.

## Conclusions

I do not have a specific answer for the reader as to what the wind is for me, and I would like the reader to answer it for themselves by reading this piece of writing. I would like the reader to reflect on their own relationship with the wind and its being a medium for relationships and connections. I would like everything to remain at the level of interpretation and for there to be no straightforward answer for him in this piece of writing.

I hope that this piece of writing has encouraged you to see the wind as more than just one of the atmospheric phenomena; and also to look for the everyday joys in your routine. I begin this piece of writing with them, and they are not only related to the people close to me, to whom I express my subtle gratitude in the appendix, and invite them to become participants in my work by wearing the wind measurement object I have created. Perhaps the word joy in this work only gives rise to the positive meaning of wind, because this work is an incentive to seek that joy.

The wind contains an infinite number of factors, objects and meanings, only a small part of which I have discussed in this paper. The wind comes into contact with objects and thus creates sounds which man adapts to make instruments such as the wind organ, wind harp or wind chimes. I also discuss the fact that these works give rise to the view that the wind combines the natural and the divine elements, according to L.<sup>35</sup>.

I associate wind with uncertainty because it is invisible and only appears when it hits objects. It is unpredictable and therefore reminds me of modular synthesis, which is also characterised by uncertainty and unpredictability, and which I use in my work. I discuss how to capture, catch, and observe this indeterminate wind, using a variety of devices and methods, one of which I apply to my work.

I was reminded of the importance of finding joy in everyday life, and more and more often I caught myself closing my eyes to a bigger gust of wind. I tried to translate the wind like a language, from the invisible to the audible, from the sensory to the mental. I spent a lot of time communicating with people close to me, certain ideas, words, experiences, journeys would not have been possible without them.

I hope that the reader will hear the wind and translate it into their own inner language.

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<sup>35</sup> Louise M Pryke, *op. cit.*, p. 69-70

## Bibliography

- Borriello, Sara. „The Mutability and Ambiguity of the Wind. What Art for a Quasi-Thing?“ *Lebenswelt Aesthetics and Philosophy of Experience* 22, no. 22 (September 3, 2024). <https://doi.org/10.54103/2240-9599/25505>.
- Boyadjian, Anthony. „History of Wind Chimes.“ *Wind Chimes Australia*, September 29, 2021. <https://windchimesaustralia.com.au/history-of-wind-chimes/>.
- Červiakov, Vitalij. „Walking as a pretext and space in contemporaneity“ *Lituanistika*. Vilnius Academy of Arts, 2022. <https://www.lituanistika.lt/content/95295>.
- David George Haskell. *Sounds Wild and Broken*. Penguin, 2023.
- Artist Ferment, Didier website. „Plastorgan.“ [www.ciel-libre.nnx.com](http://www.ciel-libre.nnx.com), n.d. <http://www.ciel-libre.nnx.com/old/ukplasto.htm>.
- Kynas, Arūnas Kazys, and the State Art Institute of the Lithuanian SSR. „Vėjarodžių motyvai senoviniuose lietuvių geležiniuose kryžiuose.“ 1969.
- Last Minute Engineers. „Send Receive SMS & Call with SIM800L GSM Module & Arduino.“ Last Minute Engineers. Last Minute Engineers, August, 2018. <https://lastminuteengineers.com/sim800l-gsm-module-arduino-tutorial/>.
- Pryke, Louise M. *Wind*. Reaktion Books, 2023.
- Razauskas, Dainius. *Vėjūkas. Lietuvių vėjo demono vardo ir įvaizdžio rekonstrukcija, atsižvelgiant į vieną skitų atitikmenį (Osetinų Wæjug / Wæjyg)*. Vilnius: Lietuvių literatūros ir tautosakos institutas, 2004.
- Royal Museums Greenwich. „Knots: Measuring Speed at Sea,“ 2024. <https://www.rmg.co.uk/stories/topics/knots-measuring-speed-sea>.
- Solnit, Rebecca. *Wanderlust: A History of Walking*. London: Verso, 2002.
- Tzz.lt. „Eolas - reikšmė“ Dictionary of international words, 2019. <https://tzz.lt/e/eolas/>.
- Tzz.lt. „Eolinis - reikšmė“ Dictionary of international wordss, 2019. <https://tzz.lt/e/eolinis/>.
- Lithuanian Encyclopedia. „Vėjas“ 2025. <https://www.vle.lt/straipsnis/vejas/>.

## **List of Illustrations**

1. Photo of 8 cups for the wind directions. Personal archive
2. Photo of the sender devices. Personal archive
3. Graphical representation of wind direction and speed in the form of windbarbs; Ballard, Ryan. „How to Read the Wind Direction.“ Surf Researcher, December 7, 2021. <https://centerforsurfresearch.org/how-to-read-the-wind-direction/>.

## Appendix

### Object for catching the wind: Instructions

This object does not need to be handled specially - it is designed to measure wind. If you want to create wind by blowing or tapping the piezo element (the round disk on the outside), go ahead. Each evening you will need to load the powerbank I gave you, and turn/switch the object on - use it - wander (by thought or foot) during the hours I have asked for (the opening hours of the Atletika gallery). I will not see where you are walking, where you are, I will only get wind data. SIM cards are used for data transmission, so the connection should be wide, but try not to be where there is no connection usually.

I will start my notes with a quote from R.: ‘Every day is filled with opportunities to be amazed, surprised, enthralled—to experience the enchanting everyday.’<sup>36</sup> It is important that you notice what the wind is lifting or obscuring, that you notice the wind that arises from natural (non-man-made) circumstances, and, in contrast, that you notice the wind that you might be creating. I chose you because you are a person who is also my (daily) joy. This experience remains yours, personally, unless you wish to share it.

I was inspired by some suggestions from R.’s book ‘The Art of Noticing’ , and I want to share them in my own interpretation - how to notice something new and joyful every day.

He suggests to be like a tourist in your own city - to see a familiar city in a new way<sup>37</sup>. I remember G.’s work during the V. symposium, during which I tried to look with neutral eyes, as if I had a new perspective. This experience has remained with me as incredibly powerful and surprising. I invite you to try it too. I suggest that you go into an open courtyard, an unvisited street, a corner, and explore the city as if you had a new perspective.

Listening is where inspirations and discoveries happen. R. suggests to look for sounds that are not in the foreground, that we usually dismiss as unimportant<sup>38</sup>. I suggest to listen to the city. Pay attention to which side of the sound is coming from. Notice what sounds you create yourself.

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<sup>36</sup> Rob Walker, *Art of Noticing: 131 Ways to Pay Attention*. (KnopfDoubleday Publishing Group, 2019), p. xvi.

<sup>37</sup> *Ibid*, p. 10

<sup>38</sup> *Ibid*, p. 70

I hope this experience will be interesting and will allow you to enjoy the little things in everyday life.

### A small token of appreciation

V. 🤔

R. ❤️

R. 🌻

V. ✨

D. 🤪

D. ☀️

J. 🤔

M. 🎵

A. ✨

M. 🤪

T. 🙌

G. 🥨

G. 🎯

A. 🤔

V.:)

A. 😐

A. 🤔

J. 🤔

M. 😊

G. 😊

V. 😂

V. 😊

R. 🦄

E. 😊

A.:)

R. ✨

J. 🍄 🟩

T. 😬

J. ❤️

J. Neturiu 😊 !

N. 🍌

V. 😊

D. 🙌

J. :D

A. ✨

V. 🍷

I. 🦖

J. ❤️

T. 😊

L. ❤️ ❤️