

Only That Which Moves Exists

From Electromagnetism to Vibrationism

1. Introduction

The story, Douglas Kahn tells us, begins with Thomas Watson, Alexander Graham Bell's assistant.¹ Hoping to hear Bell's historic message, Watson was listening carefully to a metal line, a device which in time would be called the telephone. At this point, Bell and Meucci fall into the background and the highly observant assistant takes centre stage. As he listened, the attentive Watson became fascinated by the fact that, as well as the electricity emitted during the experiment, there were many other noises that could be heard through the cable. These were natural radio waves that came primarily from the stars. Today our skies are full of artificial waves, which are known as 'pollution'. However there exists an even more specialist and fashionable term, the Anthropocene - referring to all radiation produced by people which now forms part of our ecosystems. The presence of waves produced by our human activity is so significant, that nowadays it's necessary to base radio

Realization: Script and editing of José Luis Espejo, with pieces by Stephen P. McGreevy and Lucrecia Dalt and interpretation of poems by María Salgado and Xavi Rodríguez. The rights of the artworks belong to their authors.

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¹ "Radio was heard before it was invented. It was heard before anyone knew it existed. It was heard in the first wireless technology: the telephone. The telephone served two major purposes: it was a scientific instrument used to investigate environmental energy, and it was an aesthetic device used to experience the sounds of nature. The telephone would also find success in the field of communications. The first person to listen to radio was Thomas Watson, Alexander Graham Bell's assistant. He tuned in during the early hours of the night on a long metal line serving as an antenna before antennas were invented." [...] "The telephone produced plenty of noises and odd sounds when it was first tested from one room to the next, but the types of sounds Watson heard during his off-hours on a line that stretched a half mile down the street were different. He did not seek to eliminate them because they interrupted nothing. They were curious and captivating enough to keep him up into the early hours listening. He may have been a sidekick in the history of communications, but in the history of electromagnetism he was most likely the first person on earth to listen to radio. All Bell did was invent the telephone. Watson heard electromagnetic waves a decade before Heinrich Hertz empirically proved their existence and two decades before Guglielmo Marconi was credited with inventing wireless telegraphy. The cult leader Pythagoras is reputed to have been the first person to imagine a mythical acoustical cosmos of the music of the spheres, but the sidekick Watson was the first to listen to the sound of electromagnetic waves that actually course through the cosmos, irrespective of the silent vacuum of outer space, and he, as of this writing, has no cult."

Douglas Kahn. *Earth Sound Earth Signal: Energies and Earth Magnitude in the Arts*. University of California Press. 2013. pp. 1 and 3.

telescopes in extremely remote areas such as the Atacama Desert and Antarctica to listen to the sounds in the sky. But they're still out there.

At any rate, what Watson was listening to was the radiation of the stars converted into sound. This phenomenon of converting stars' radiation into sound, or rather, into vibrations audible to the human ear, is called transduction, and it's key to an understanding of modern listening. We've even designated it its own section on this radio-web. However, transduction is not only electrical. It can also be mechanical, or even "natural". For instance, in the mid-19th century, Henry David Thoreau noted that the wind whistling through telegraph wires formed a kind of Aeolian Harp. In an Aeolian harp, the air passing around the strings creates a vibration, and in turn produces a natural transduction of wind into sound from its contact with the strings. So an Aeolian harp made up of telegraph wires presents no great mystery.

These simple discoveries gave fresh impetus to Music theory or Harmony of the Spheres. Just to summarise and provide a little context here, the Ancient Greeks proposed that there was an ideal order which could be called music, even though it was inaudible. The appearance of the mechanical clock in the 13th century, coupled with the resurgence of Plato's theories, gave rise to a series of cosmological theories that contemplated a finite universe which moved as a spherical mechanism in perpetual harmony. Despite advances in our understanding of physics, this branch of cosmology persists in art and philosophy – and not just of the esoteric kind. It's used, among other things, as an explanation for the phenomenon of synesthesia. Musicians like Scriabin and painters like Kandinsky used Theosophy to reinterpret the idea that sound and image were connected in harmonious ratios that could be represented.

This 'representation' is the key to this narrative, linking it to what we heard earlier about Thomas Watson. A new wave of artists, aware of the physical entity of vibration, would leave aside speculative questions around spherical music and begin not only to represent but also to transduce the vibration of the world into painting. Sound and light are vibration. Sound is energy and light, as well as being energy, is matter. If approached in this way, both discernible phenomena, in which humanity has encoded the known world, can therefore be represented and transduced into works of art.

This is a series of podcasts about vibration and its highly divergent presence in early twentieth-century art.²

² Voice-over recorded on Ave María street 2019.

2. Stephen P. McGreevy. *Early Cape*. 2001

Audio sample: Stephen P. McGreevy "Early Cape" on *Morning Auroral Chorus III The Music of the Magnetosphere*. Public Domain, 2001
https://archive.org/details/auroral_chorus_2_cd

3. Interview with Shelley Trower. 2017

Yeah, I sometimes think vibration becomes a bit vague because there's all these different kinds of movements. So you have, like, vortices – a whole lot of different kinds of movements – and sometimes I'm thinking: what is specific about vibration to try and keep hold of exactly what that is? And that it relies on materiality because you can't have it without something being vibrated, and at the same time it isn't itself anything; it's this movement, it's that transmission. I don't know, it's very hard to pin down.

Well I think it goes back a lot to musical strings. I talk quite a lot about musical strings and how they span right from — well, you could go right back to Pythagoras — particularly, I think, from about the mid-18th century, right through the 19th century, into the 20th century. So musical strings, and particularly sympathetic vibration, is used to explain a great deal about the body and about energies in the universe. I think a lot of people who have studied this tend to look at very modern technologies like wires and so on, and I can come on to that in a sec, but I do think that musical strings are used a lot in this period as well and sympathetic vibrations... so that phenomena where, as I'm sure you know, one musical string tuned to the same pitch as another causes it to vibrate when it's plucked. And there's other kinds of forms of that as well, of course, but I see that idea of sympathetic vibration used again and again in the work of physicists — Helmholtz has always got to be central, I think, because of his great work on the ear and on so many other areas of physics and acoustics. So he uses this idea of sympathetic vibration to explain the radiation and the transmission of energy through the ether. He came up with the first theory of thermodynamics... he was one of those who did that; he sees that as a model for how energies, more generally, can radiate and be transmitted. And then he also looks at sympathetic vibration a lot in his study of the physiology of the ear and acoustics and on the sensations of tone.

But, yeah, I'm not so sure if I can trace how physics influences the study of the ear, so much as there's more of an interchange between them, so the study of the ear and the use of sympathetic vibration to understand the ear and the nervous system as well, and, yeah, so you see it also... I've talked about the transmission of energy, but it's also used to describe how the ear functions — the tiny, tiny hair-like structures in the ear and how they vibrate sympathetically to allow the sensation of different tones. Helmholtz talks quite a lot about that, on the sensations of tone.

So, sympathetic vibration and strings become a model for the workings of the ear and also for the nervous system; John Tyndall over in Britain explicates a lot of Helmholtz's work and brings it over to Britain and he uses that model of sympathetic vibration for the ear but also for the nerves, more generally. I quite like this quotation from Tyndall... he says: "If you open a piano and sing into it, a certain string will respond," so he's describing sympathetic vibration. He says: "Change the pitch of your voice; the first

string ceases to vibrate, but another replies. Change again the pitch; the first two strings are silent while another resounds. Thus is sentient man acted on by nature, the optic, the auditory, and the other nerves of the human body being so many strings differently tuned, and responsive to different forms of the universal power”.

Yeah, first of all I think you have the musical strings and then once you have wires readily available as an analogy they become, I think, more appropriate in some ways because instead of vibrations being transmitted across strings they transmit longwise, which is more like the functioning of the nerves, and you see that in both directions, so you see scientists using nerves as a model for wires and how telephony works and vice versa, you see how telephony can become a model for the nerves. And also then malfunctions, so how noise can occur in sensory transmission and in telephonic transmission.

I don't think there's much of a leap sometimes between all those analogies between nerves and wires in scientific discussions, and engineers and others discussing it, and between how spiritualists and psychotic people — not that they're the same — but, you know, there's not always that much difference between how these various groups of people are using these analogies. Schreber takes the analogies and he kind of collapses them completely so nerves are wires and wires are nerves, and he sees himself directly linked up in this way to God, so there's this vast communication network, of which he is a part.

I hadn't really thought about filaments much at all before, but Schreber talks about them, doesn't he; he describes filaments entering his head and transmitting voices to him. And I was looking again at that; on the one hand they seem to be acting like telephone wires but they're thinner, aren't they; they're more tenuous... so the word is descended from the Latin word for 'thread' and I wonder if, in Schreber's case, that helps to explain why nobody else is aware of them because they're thinner than wires; so they can be wires but they can be so thin you can't see them. They're kind of somewhere between, perhaps, wires and radio; kind of just on the edge of... they're wires but only just. So whether it's about the thinness of them... and also nerves being more thin. So whether for Schreber they're a closer analogy to the nerves because they have this tenuousness that the wires lack because they're more so

Audio sample: Tycho Brahe. Filaments. Archive.org. 2009
<https://archive.org/details/Filaments>

4. Wires and physiology. Marcel Duchamp and Nervous Filaments

Audio sample: Roger Corman. *House of Usher*. MGM Studios. 1960

“It was thus that he spoke of the object of my visit, of his earnest desire to see me, and of the solace he expected me to afford him. He entered, at some length, into what he conceived to be the nature of his malady. It was, he said, a constitutional and a family evil, and one for which he despaired to find a remedy—a mere nervous affection, he immediately added, which would undoubtedly soon pass off. It displayed itself in a host of unnatural sensations. Some of these, as he detailed them, interested and bewildered me; although, perhaps, the terms and the general manner of their narration had their weight. He suffered much from a morbid acuteness of the senses; the most insipid food was alone endurable; he could wear only garments of certain texture; the odors of all flowers were oppressive; his eyes were tortured by even a faint light; and there were but peculiar sounds, and these from stringed instruments, which did not inspire him with horror.”³

Audio sample: Keith Fullerton Whitman. *(Live) Generator 1.0*. Café du Nord. San Francisco. July 11, 2010

In Roger Corman’s adaptation of Edgar Allan Poe’s story *The Fall of the House of Usher*, Vincent Price voices this explanation of his condition, known today as Hyperacusis, where he can hear every sound from the ailing house. Often in Poe’s tales, the basis for the story is first discovered through noises and sounds, as though hearing itself were a medium for mystery. In late 19th century English literature it was common for characters in stories to hear things they thought were supernatural. And even Thomas Edison, inventor of the phonograph, tried to build a device to communicate with the dead.

Memoirs of My Nervous Illness, published in 1903, is based on the diaries of Daniel Paul Schreber and is analysed by Shelley Trower in her book *Sense of Vibrations*. In the book she talks about how nerves were often compared to telegraph wires. At a time in which vibrational energy was not fully understood, everything was electricity, everything was vibration, and electricity could even be a way of communicating with other spheres of reality.

Audio sample: Michael Esposito & Carl Michael Von Hausswolff & Phantom Air Waves. "The Ghosts of Effingham Edison Fireside (1909) Playback" on *Voice Box: A Collection of Oddities and Curiosities*. *Phantom Archives* – PARCH1011, *Spectral Electric* – SE No. 0001. 2016

The famous physiologist and father of modern otology, Hermann von Helmholtz, said that “the principles of telegraphy reveal the way in which the body processes information: in both systems, indistinguishable impulses created for different reasons take on meaning only when they are received or well interpreted”.

³ Edgar Allan Poe. *The Fall of the House of Usher*. 1839 <https://www.ibiblio.org/ebooks/Poe/Usher.pdf>

Shelley Trower reminds us that “for hundreds of years it was assumed that nerves were hollow tubes that animal spirits flowed through to deliver sensations to the brain”.⁴

This idea of tubes endured and was adapted to the technology of the time. We can assume that these physiological metaphors were fairly obvious in the literature and culture of the turn of the 20th century. In a documentary on the reproduction of Marcel Duchamp’s *The Large Glass*, undertaken by Richard Hamilton, there is a telling detail in this regard. Hamilton explains how difficult he found it to find cylindrical wires to replicate the tubes connecting the chocolate grinder to the malic moulds. In the piece, the wires transmit masturbatory or erotic energy between the bachelors and the naked bride, who is both machine and insect. The reason, we venture to assert, is that the wires are actually supposed to be filaments; that is, small cylindrical tubes which, at the time, were thought to make up the nervous system and have their parallel in the telegraph.

This parallel of the body as a motorised organism activated by tubes and controlled by an electrical system was retrieved by linguist and listening scholar Steven Connor in his book *Paraphernalia*.

“The laying of transatlantic telephone cable in the nineteenth century was accompanied by much heroic fanfaring, but I think that people may also have been haunted by the idea of that wire lying there, indifferently pervaded by our rages, musings, and despairs, out of sight but never satisfactorily out of mind, slithered over by blind white things, amid the cold and dark that were its natural element.. [...] **Wires, like serpents and dragons, belong to unseen, inhospitable, inhuman places; they make our words and impulses and feelings pass through invisibility and uninhabitability.** [...] The magic of coils — which associates Faraday’s electromagnetic coil with the power invested in amulets showing interwoven forms — is itself tangled with the peculiar, phobic fascination with the bodies of creatures like snakes capable of coiling over themselves and others of their species, creatures whose singularity is dubious, creatures of the labyrinth whose bodies are themselves labyrinthine [...] **A wired world is the promise of a world recomposed as a vast telephone exchange, in which everything can make contact with everything else, all calls will be returned, and everything will loop magically back on itself; but there was, and is, a vileness that breeds within wires, with their whispers of dropped stitches and disconnections, crossed wires, mazes and black magic.**”⁵

This series of metaphors of body as machine, the machine as world and the world again as body, take on a rather monstrous tone in Connor’s quote. And speaking of wires, he makes it seem as though the telegraph was built in the image and likeness of the nervous system. In other words, what we now know as cybernetic metaphors were once radio electric metaphors, and going back further to metaphors of 17th century clockwork, it becomes clear that they were once also mechanical. In fact, mechanism was at the heart of dystopian imagination at the turn of the 20th century. However, as

⁴ Shelley Trower. *Senses of Vibration. A History of the Pleasure and Pain of Sound*. Continuum, 2012. p. 141

⁵ Steven Connor. *Paraphernalia: The Curious Lives of Magical Things*. Ariel. 2012. p. 185

this podcast series attests, the imagined worlds inspired by these radio electric metaphors weren't always so hideous.

Steven Connor once again reminds us that:

"Nowadays, getting a connection tends to mean hooking up to a network, rather than necessarily establishing any physical link. Ours is a world increasingly of wireless rather than wired connections. In fact, the dream of dispensing with wires is an old and recurrent one. The wireless world that opened up at the beginning of the twentieth century was going to be a world of communications effected by waves, radiation, vibration, emanation [...] Wires and waves are very different things [...] Waves belong to the magic or angelic otherworld; wires knit us tightly into this one." ⁶

Audio sample:

- Roger Corman. *House of Usher*. MGM Studios. 1960
- Keith Fullerton Whitman. *(Live) Generator 1.0*. Café du Nord. San Francisco. July 11, 2010
- Michael Esposito & Carl Michael Von Hausswolff & Phantom Air Waves. "The Ghosts of Effingham Edison Fireside (1909) Playback" on *Voice Box: A Collection of Oddities and Curiosities*. Phantom Archives – PARCH1011, Spectral Electric – SE No. 0001. 2016

⁶ Steven Connor. *Ibid.* p. 189

5. Lucrecia Dalt. *Concentric Nothings*. 2018

Audio sample: Lucrecia Dalt "Concentric Nothings" on *Anticlines*. Rvng, 2018. Her work stems from her previous experience as a civil engineer, specialised in Geotechnics, along with other influences that have led to her telluric imaginary. She has worked with Radio Web Macba, released the solo albums *Ou*, *Syzygy* and *Commotus* and collaborated with other musicians and sound artists such as Rashad Becker, Laurel Halo, Julia Holter and Kohei Matsunaga.

6. Mesmerism and Cosmic Anarcho-Communism: František Kupka

Audio sample: Laurie Spiegel. "Patchwork" on *The Expanding Universe*, *Unseen Worlds*, 2012

Just as filaments provided a useful mechanist metaphor for the nervous system, there are other terms which played a decisive role in the way in which people's relationship with vibration, sound and music was understood.

Around 1912, Vasily Kandinsky spoke of *Klang*, when sound and vibration resonate with the artist's soul. Marinetti's 1914 text *Geometric and Mechanical Splendor and the Numerical Sensibility* talks about universal vibration with certain cosmological emanations.⁷ The aim of capturing these vibratory energies using artistic media was a constant in the paintings of Boccioni for instance, who in 1910 in *Futurist Painting: Technical Manifesto* discussed painters' capacity to do the same as X-ray machines.⁸ The reasons why these painters believed they could directly affect viewers in their paintings, argues Linda Henderson in *Vibratory Modernism*, is down to the strong presence of the idea of ether in popular culture in the first two decades of the 20th century. Ether was thought to be the bridge into an invisible universe, a vehicle of cosmic energy which was even responsible for daguerreotype impressions.⁹

⁷ "1) "We systematically destroy the literary in order to scatter it into the universal vibration and reach the point of expressing the infinitely small and the vibration of molecules, E.g.: lightning movement of molecules in the hole made by a howitzer (last part of "Fort Cheittam-Tepe" in my "Zang tumb tumb"). Thus the poetry of cosmic forces supplants the poetry of the human".

8) "Our growing love for matter, the will to penetrate it and know its vibrations, the physical sympathy that links us to motors, push us to the use of onomatopoeia".

9) "My love of precision and essential brevity has naturally given me a taste for numbers, which live and breathe on the paper like living beings in our new numerical sensibility. E.g.: instead of saying, like the ordinary traditional writer, "A vast and deep boom of bells" (an imprecise, hence inefficient, denotation), or else, like an intelligent peasant, "This bell can be heard from such and such a village" (a more precise and efficient denotation), I grasp the force of the reverberation with intuitive precision and determine its extent, saying: "Bell boom breadth 20 square kilometers." In this way I give the whole vibrating horizon and a number of distant beings stretching their ears to the same bell sound. I escape imprecision and dullness, and I take hold of reality with an act of will that subjects and deforms the very vibration of the metal in an original manner."

F.T. Marinetti. *Geometric and Mechanical Splendor and the Numerical Sensibility*. 1914 en MARINETTI: Selected Writings (Farrar, Straus and Giroux, translated by R. W. Flint and A. Coppotelli) <http://www.ubu.com/papers/marinetti01.html>

⁸ Linda Henderson. *Vibratory Modernism*. Stanford University, 2002. p. 133

⁹ Linda Henderson. *Vibratory Modernism*. Stanford University, 2002. p. 131

At the beginning of the 19th century in Europe, the old idea of ether had resurfaced, gaining momentum after Thomas Young gave his 1801 demonstration to prove that reality was teeming with waves. For the ancient Greeks, ether was the area above the air, while in Orphic tradition Ether was the son of Chronos, the god of time, and Ananke, goddess of necessity. According to contemporary science, which was of course more closely linked to mythology it was in 19th century Europe, there also existed a fifth element: quintessence.

In around 1850, James Clerk Maxwell, who together with Michael Faraday laid the foundations of the study of electromagnetic radiation, argued that ether was the substance upon which luminiferous waves were propagated, and which was accepted and upheld until the studies of Lord Kelvin and Nikola Tesla. This scientific belief, sustained by this high society circle, stood until Einstein's Theory of Relativity was accepted in around 1919.¹⁰ So for essentially sixty years, scientific culture resurrected and kept the idea of ether alive, allowing it to infiltrate the ideas and beliefs of a group of European artists.

Although Czech painter František Kupka had originally conceived his paintings as revelations of the invisible much like x-rays, by 1913 he had adopted the model of wireless telegraphy and the artist as an emitter of vibratory thought waves. He considered his purely abstract panels from 1912 onwards to be "exteriorizations" of images from the artist's mind that could, in turn, generate similar vibrations in the mind of the viewer via light waves from the colours. His aims weren't far off from Kandinsky's with regard to producing a sympathetic vibration, or *Klang*, in the soul of the viewer.¹¹

For her part, Linda Henderson explains in her essay *Vibratory Modernism: Kupka, Boccioni, and the Ether of Space* that:

"The notion that all forms of energy consisted of vibrations in the ether also inspired physiologists to conceive of human perception as a physical rather than an intellectual phenomenon. In 1904, for example, English physicist Oliver Lodge claimed that electrons cause 'ripples' in the ether. Lodge also described human sensory organs as 'instruments for the ready appreciation of ethereal ripples'".¹²

František Kupka had been immersed in symbolism until the more magical intentions of his work took centre stage, almost eclipsing the creation of forms. At 18, Kupka had started to work with Nazarene painter František Sequens and performed séances as a medium. In 1896, he settled in Paris, where he came into contact with Futurism and Delanuy's abstraction. In 1906, as Picasso became obsessed with breaking perspective, Kupka was studying the movement of waves. In his painting *The Bather* dated 1906 to 1909, his determination to study the spherical and circular nature of waves is apparent. His subsequent compositions explore this circular representation further, organising forms and colours in an organicism that differed from Kandinsky's geometry and other art of the European avant-garde. In fact, Kupka's paintings and drawings call on classical modernism through Secessionism and in some cases their abstraction imitates nature, solely from a profound scientific, atomic and cosmic study of perception.

¹⁰ Astradur Eysteinnsson, Vivian Liska (Ed.). *Modernism*. John Benjamins Publishing, Oct 4, 2007. p. 390

¹¹ Linda Dalrymple Henderson. *Vibratory Modernism: Boccioni, Kupka, and the Ether of Space* in Bruce Clarke and Linda Dalrymple Henderson (Ed.) *From Energy to Information. Representation in Science and Technology, Art, and Literature*. Stanford, 2002. p. 138

¹² Linda Dalrymple Henderson. *Ibid.*

In Kupka's writings, the words emission, transmission and waves were commonplace. His ideas, argues Henderson, were related to those of Colonel Albert de Rochas, who in 1892 gave a lecture in which he spoke about "cerebral radiation" or as they're also known, "thought waves". Upon being captured, these thought waves, originally described by engineer Edwin Houston, did not express themselves as recognisable forms, but rather, as wave-like movements created by brain activity.¹³ In other words, just like with the wire metaphors, part of the nervous and perceptual system was being described with mechanical metaphors, in this case the wireless telegraph.

Kupka came to assert that, in the future, art would be a purely telepathic communication. A communication, it's worth noting, based not on the subversion of the art system which was later put forward by Conceptual Art nor on the use of technology favoured by old new media, but telepathic communication based exclusively on the development of consciousness. While the telepathy of the future became apparent, Kupka had to continue painting and writing; thus, *Cosmic Spring* is possibly the most exact work in this phase of the painter's practice. Even today, housed in the National Gallery in Prague, the work awakens a hypnotic feeling that is difficult to place. In the words of visual studies professor, Fae Brauer:

"Kupka created an illusion of waves and crystalline arcs which turn in an indefinable space and forms that seem to melt into a centre of lava, and fungi. Recasting Sir Isaac Newton's experiments with seven spinning disks of prismatic colour to produce white light, Kupka painted four main disks in his *Disques de Newton: Étude pour la Fugue en deux couleurs* (*Disques of Newton: Study for Fugue in Two Colours*) with the white disk in the foreground indicating that when spinning fast enough, this is what the disks produce. In his second version, he conveyed spinning rings of colour able to produce the sensations of white light".¹⁴

Essentially, Kupka was studying scientific laws and producing pictures that make light vibrate at certain frequencies. The vibration produced by the painting would not play a purely aesthetic role, but a curative one, with the capacity to transform people, society and the future.

The Neo-Mesmerist movement emerged at the beginning of the 20th century, influenced in part by the Czech painter. From today's understanding, Mesmerism bore a relation to mechanistic and cosmological metaphors, and had an unusual relationship with politics. Mesmerism, or the theory of animal magnetism, materialised at the beginning of the 19th century with all the ingredients of what was considered alchemy in the 18th century, or occult sciences in the 20th.

"The nineteenth-century practice of Mesmerism, which depended upon the theory of a transmissible animal magnetism, or soul-force, threw up many examples of people starting to conceive of themselves as kinds of electrical apparatus formed by wire-like connections. The inventor of Mesmerism, Anton Mesmer, would conduct therapeutic seances, in which the

¹³ Linda Dalrymple Henderson. Ibid. pp. 141–142.

¹⁴ Fae Brauer. "Magnetic Modernism: František Kupka's Mesmeric Abstraction and Anarcho-Cosmic Utopia" in David Ayers, Benedikt Hjartarson, Tomi Huttunen, Harri Veivo (Ed) *Utopia: The Avant-Garde, Modernism and (Im)possible Life*. Gruyter, 2015.

https://www.researchgate.net/publication/307905682_Magnetic_Modernism_František_Kupka%27s_Mesmeric_Abstraction_and_Anarcho-Cosmic_Utopia

assembled group would join hands to conduct and contain the force. If we sometimes think of wires as the world's nervous system, pulsing with messages and information, then this is amply anticipated in the ways in which human bodies began to be thought of, not as a hydraulic mechanism, but as wired together and therefore sometimes capable of being rewired."¹⁵

Mesmer understood that the world and the body worked in a similar way so by putting magnets on the skin and directing bodily flows with the hands, magnetic poles could be activated on the body, like those on a planet.¹⁶ Yet it would seem that Kupka's interest in Neo-Mesmerism did not refer solely to the physical and healing capacities of this practice:

"Neo-magnetism intersected with Spiritualism, mediumism, Theosophy, Neo-Lamarckian Transformism, Bergsonian vitalism and the new sciences of electromagnetism, radioactivity and X-rays in their utopian aspirations for corporeal regeneration and superconsciousness. It also intercepted with Kupka's identity as a Buddhist, Theosophist and medium, as well as an Anarcho-Communist who endorsed Reclus' and Kropotkin's theories of a decentralised political economy, based on mutual aid and Neo-Lamarckian evolutionism, and who pursued a dialectical art praxis based on "propaganda of the deed".¹⁷

Kupka's work was produced to serve the Anarcho-Communist Revolution to the point at which both anarchists and Marxists called him "a comrade in arms".¹⁸ On the one hand, the painter was among the intellectuals which supported the anarchist movement through texts and figurative paintings opposing the First World War;¹⁹ on the other, Kupka imagined an anarchist utopia where society was in harmony with nature.²⁰

¹⁵ Steven Connor. *Paraphernalia: The Curious Lives of Magical Things*. Ariel. 2012. p. 190

¹⁶ Fae Brauer. "Magnetic Modernism: František Kupka's Mesmeric Abstraction and Anarcho-Cosmic Utopia" in David Ayers, Benedikt Hjartarson, Tomi Huttunen, Harri Veivo (Ed) *Utopia: The Avant-Garde, Modernism and (Im)possible Life*. Gruyter, 2015. P. 147

https://www.researchgate.net/publication/307905682_Magnetic_Modernism_František_Kupka%27s_Mesmeric_Abstraction_and_Anarcho-Cosmic_Utopia

¹⁷ Fae Brauer. Ibid.

¹⁸ Kupka had pursued the Anarcho-Communism of Kropotkin's "pro-paganda of the deed". By putting his pen, paintbrush and burin at the service of the revolution, Kupka became what both Anarcho-Communists and Marxist Communists called "a comrade in arms". [...] In his vision of the history of humanity, Kupka illustrated the flow of time as organic with generations of Homo sapiens sweeping through the universe in progressive movement towards an ultimate harmonious unity.

Fae Brauer. Ibid.

¹⁹ "František Kupka. "A bas la justice militaire!" 1902, as it appears in Patricia Leighton. *Modernist Abstraction, Anarchist Antimilitarism, and War*. *Anarchist Developments in Cultural Studies Art & Anarchy*, 2011

²⁰ "While capturing the Anarchist utopia of a society in harmony with nature and the universe envisioned by Reclus and Kropotkin, Kupka's image also embraces the Theosophical concept of cosmological and universal harmony, particularly as the family in the foreground – just like man depicted by Kupka on this book cover – all look towards the galaxies as if heralding a cosmic generation and a cosmic Utopia. Once he infused his studies of cosmology with the vibratory power of magnetic emanations, Kupka's celestial arc became a dominant motif in his mesmeric abstractions"

Fae Brauer. Ibid. P 150.

In other words, we should take into account the fact that each of these paintings worked as wireless technology, charged with transmitting artistic ideas for a consciousness that, despite not having evolved enough to capture telepathic waves, would be transformed through the perception of these paintings, moving us closer to political and cosmological harmony.

Audio sample: Laurie Spiegel. "Patchwork" on *The Expanding Universe, Unseen Worlds*, 2012

7. Ramón Goy de Silva. Hertzian Waves, 1927

“Ondas hertzianas,
rápidas como las alas de la luz y del
viento,
silentes y potentes,
desharéis los hilvanes que unen los
Continentes
¿Pero y la libertad del pensamiento?
Quitáis las ligaduras a nuestro siglo vivo
mas el tiempo futuro será vuestro
cautivo
Cazadoras expertas de los ecos
discretos,
ondas carabineras
de las aerofronteras
¡Ya no harán contrabando los ecos, de
secretos!”²¹

“Hertzian waves,
quick as the wings of sun and wind,
silent and powerful,
you unpick the stitches joining
Continents
But the liberation of thought?
You remove the ligatures of our living
century,
the future will be your captive,
expert hunters of discreet echoes,
carabineer waves
of airborders,
echoes will not be contraband or
secrets!”²²

Audio sample: María Salgado. madriz 1984 // low-tech poet published: [ferias](#) (up José Hierro); [31 poems](#) (puerta del mar) // published [ready](#) (arrebato, 012) // living in making a sound. Phrases for a political film (014-016) // members of the research collective [seminario euraca](#); graphic-editor collective [anfivbia](#) // audio-text research [with fran mm cabeza de vaca](#) // co-invention: zine [circo de pulgas](#) group [pank efimero](#): [penewannahave](#) / project [contrabando](#) / project [zczt](#) actions nerves tests etc. / [poética 09](#) / [poética 011](#) / [fraga ha muerto](#) / [poética 2014](#) / [poética 2016](#) / [poética 2017](#) // living in [la lenta](#) //

²¹ Ramón Goy de Silva Cuenta de la lavandera; Vía iris; Antenas siderales. Villarejo del Valle, Ávila: Biblioteca Rubén Darío, cop. 1927

²² Ramón Goy de Silva Cuenta de la lavandera; Vía iris; Antenas siderales. Villarejo del Valle, Ávila: Biblioteca Rubén Darío, cop. 1927

8. Vibrationism: Carmen and Rafael Barradas

Audio sample: Carmen Barradas. *El molinero*. Composed in Madrid in 1922 and first performed in Montevideo on 09/11/1933 by Carmen Barradas' female student choir. [Performed by Coro Departamental "Paulina Sastre de Pons", directed by Ana Conde and accompanied on piano by Héctor Fuentes, 18 March 2015](#)

The phrase that lends this podcast series its name belongs to Joaquín Torres García, who, in 1938, wrote *Vibracionismo*, or Vibrationism, a text described as a feedback loop of form and theory with the work of Rafael Barradas. Barradas was a Uruguayan painter who travelled to Barcelona and came into contact with part of the European avant-garde movements in the first two decades of the 20th century. Barradas and Torres García christened a sho

rt-lived artistic movement called *Vibrationism*, which drew influences from Italian Futurism and, to a lesser degree, the painting of Kupka and the Delaunays. However, possibly Rafael Barradas' most interesting relationship with sound and noise was not by way of his influences or readings, but through his sister, **Carmen Barradas**, aptly named the "noise maniac".²³

Audio sample: Carmen Barradas. *Zíngaros* (for piano and silver bracelet with multiple bands). 1922. [Performed by Patricia Pérez, Laboratorio de Creaciones Intermedia, 2013](#)

In the most comprehensive article on the composer Carmen Barradas, written by Carmen Cecilia Piñero Gil, she describes the pianist's singular musical production. In 1915, Barradas received a grant to travel to Barcelona, the purpose of the trip being, among other things, the help her brother. The siblings lived together in Barcelona, travelled to Madrid in 1918 and returned to Barcelona in 1925, to the Hospitalet de Llobregat where the Barradas' house would be turned into what was called "Ateneílo de L'Hospitalet", which could be translated as "The little Athenaeum of Hospitalet", a municipality of Catalonia near Barcelona.²⁴

Audio sample: Carmen Barradas. *Santos Vega*. 1923 [Performed by Tosar Errecart, on Carmen Barradas, 1976](#)

²³ Following the testimony of the main archivist of Carmen Barradas, Néffer Kröger "In December of 1942, in an interview with Uruguayan music critic Roberto Lagramilla, Carmen Barradas defined herself as a noise-maniac rather than as a composer. At her house in Montevideo, Barradas explained to Lagramilla that since she was a little girl, she was fascinated by the sounds of a sawmill located near her home and by the noises of people working in it".

Gabriela Aceves Sepúlveda. *Towards an Alternative History of Sound Art and Electronic Music: Carmen Barradas and Jaqueline Nova (1888–1975)*. 2017

²⁴ Carmen Cecilia Piñero Gil. "Carmen Barradas: Modernidad y exilio interno", in Nagore, María, Sánchez de Andrés, Leticia y Torres, Elena (eds.): *Música y cultura en la Edad de Plata, 1915-1939*, Instituto Complutense de Ciencias Musicales ICCMU, Madrid, 2009. pp. 603–618. Carmen Cecilia Piñero Gil: "Carmen Barradas: Modernidad y exilio interno". In Molina Alarcón, Miguel: *¡Chum, Chum, Pim, Pam, Pum, Ole! Pioneros del Arte sonoro en España, de Cervantes a las Vanguardias*. Weekend Proms, Lucena, 2017. pp. 490–503

With the help of his sister:

"(Rafael) Barradas went back to Barcelona at the end of February or the beginning of March 1916, after a spell in Zaragoza. In July 1917 he unveiled two chromatically strong works, in the exhibition *Homage to French Artists*, staged by Dalmau in his gallery. On 27 August that same year, he visited, for the first time, Joaquín Torres-García, who in November would publish an article on Barradas in Montevideo which, despite describing his works as 'symphonies of colour', made no mention of Vibrationism".²⁵

Suffice to say, without Carmen Barradas there would have been no *Vibrationism* and, Ramón Gómez de la Serna's translation of the Futurist Manifesto by in 1910 was equally important.²⁶ In 1917, Carmen and Rafael decided to change their surnames, Pérez Jiménez, to Barradas, that of their paternal grandmother.²⁷ In September 1919 Rafael wrote to Torres-García:

"[...] around four or five months ago, one day, looking out from a café, a battalion passed by; that is, the sound of French horns and drums and the bells of trams. Simultaneously, a piano was being played in the café that also remained outside the café. Everything was VIBRATING which, in reality, is not there. I WAS VIBRATING in such a way that I CREATED THINGS – and, as I say — the same thing happened then as now: I would have shot myself in the head, specifically in the HEAD".²⁸

Vibrationism was conceived in 1917, the year that Barradas spoke of a "plastic translation of reality captured whole, without the escape of any smell or flavour, noise or movement, expression or quality, synthesis, painting".²⁹ Nevertheless, it wouldn't be until December of that same year when it became consolidated in both the publication *Arc-voltaic* and his first public exhibition in 1918.³⁰ Also in 1918, Barradas came into contact with Ramón Gómez de la Serna, and around that time Guillermo de Torre wrote the poem "ultra-vibrationism". Torre even announced the production of a Vibrationist film, which, unfortunately, would never be made.³¹

"Vibrationism – according to Torres García in his 1944 *Constructive Universalism* – is thus a movement that is fatally determined by the passing of a feeling of colour to another

²⁵ María Lluïsa Faxedas Brujats. Ibid. p. 284

²⁶ David Jarred Morse. Rafael Barradas and Vibracionismo: Science and Spirituality in Spanish Avant-Garde art. Thesis, The University of Texas at Austin, 2001. p. 27

²⁷ Carmen Cecilia Piñero Gil. Ibid.

²⁸ María Lluïsa Faxedas Brujats. Ibid.

²⁹ María Lluïsa Faxedas Brujats. Ibid. p. 287

³⁰ "Therefore, we can assert that although plastic Vibrationism was developed throughout 1917, the term only stuck at some point between the exhibition of 1917 and the publication of *Arc-voltaic*, being presented publicly in the exhibition of March 1918. Vibrationism continued its development during Barradas' time in Madrid, after arriving in August 1918, as demonstrated by the reviews of his exhibitions in 1919 and 1920; this possibly stretched until the beginning of 1920, although really it's impossible to rigidly delimit the successive Barradian 'isms'."

María Lluïsa Faxedas Brujats. Ibid. p. 285

³¹ Andrew A Anderson "Futurism and Spanish Literature in the Context of the Historical Avant-Garde" in Gunter Berghaus *International Futurism in Arts and Literature* (European Cultures, Volume 13). Berlín. Reprint 2012. p. 165

corresponding one, and, with each one commensurate, diverse notes of harmony fused together by more muted chords, on an increasingly opaque scale."³²

Jarred Morse, who wrote his PhD thesis on Rafael Barradas, believes that one of the first signs of Barradas' relationship with electromagnetic vibration is his participation in Joan Salvat Papasseit's magazine *Art Voltaic* — you can listen to a poem from the publication on this podcast series — in which his Vibrationism was openly related to the poet's *Hertzian Waves* poems. For Miguel Molina Alarcón, this publication is a timely example of the transdisciplinary relations between noise and image. It's in this magazine that we witness the painter's first approach to the theme through the use of onomatopoeias, which attempt to evoke urban noise coiled up in concentric and radial waves, clearly understood as sound and light.³³

According to María Lluïsa Faxedas Brujats, "the concept of vibration alluded, on the one hand, to the affinity between colours and sounds (musical or not), enabling him to incorporate multi-sensoriality into his works; and on the other, the vibration of colours could also allude to a longing to introduce dynamism into painting. Finally, the concept of vibration contains an emotional factor that suggests the irrational link between the artist and the world that surrounds him."³⁴ In Rafael Barradas' painting *Paisaje Vibracionista* (Vibrationist Landscape), dated 1918, there is a vibration of colour and light caused not by the buzz of the city — as in other Vibrationist or Futurist paintings — but by the apparent calm of the landscape. Jarred Morse, heavily influenced by his professor Linda Henderson, author of *Vibratory Modernism*, related *Paisaje vibracionista* Vibrationist landscape to Sonia Delanuy's 1916 work *Chanteur Flamenco* Flamenco Singer. Colour, claimed Robert Delanuy, is a vibrating rhythm whose intensity depends on its interaction with other colours.³⁵ According to Morse, this transmission of colours with regards to Delanuy's paintings is what defines Vibrationism, and not so much the onomatopoeias that were sometimes found in his non-avant-garde paintings. Even so, Morse's findings are only conjecture, and he wasn't able to demonstrate Barradas' relationship with texts like the zarzuela *Telegrafía sin hilos* (Wireless telegraphy). *Zarzuela en un acto*, and some other scientific articles.³⁶

Audio sample: Carmen Barradas. *Fabricación*. 1922
[Performed by Néffer Kröger. Recital Barradas, held on 30 March 1995 in the Museo Municipal de Bellas Artes Juan Manuel Blanes, Montevideo, Uruguay.](#)

On 22 December 1922, Carmen Barradas' *Fabrication* (*Fabricación*) was first performed at the Ateneo de Madrid. That same year saw the performance of *Aserradero* Sawmill, *Fundición* Foundry and *Zíngaros* Gypsies, the latter including in the score instructions the sustained use of the piano pedal to obtain an "opaque sound" and a bracelet with multiple bands.³⁷ These are Barradas' most avant-garde works in the historical sense of

³² Angel Kalenberg. *Rafael Barradas: El tránsito en VVAA Barradas Torres García*. Museo Nacional de Bellas Artes de Buenos Aires, Buenos Aires, 1995. p. 24

³³ David Jarred Morse. *Rafael Barradas and Vibracionismo: Science and Spirituality in Spanish Avant-Garde Art*. Thesis, The University of Texas at Austin, 2001. p. 44

³⁴ María Lluïsa Faxedas Brujats. *Ibid.*

³⁵ David Jarred Morse. *Ibid.* p. 52

³⁶ by D. A. Trueba, the article "Acerca de las propiedades de ciertas radiaciones emitidas por la chispa de la descarga oscilante", published by Dr Szilard in *Revista de la Real Academia de Ciencias Exactas Madrid*, and the 1915 book *Las ondas Hertzianas* by Ricardo Caro y Anchía.

³⁷ "Zíngaros", in the magazine *Tableros*, No. 3, Madrid, 15 January 1922, pp. 8–9. Located by Dr. Miguel Molina Alarcón through the collaboration of collector José Luis Guerrero Aroca. Quote from the article by Carmen Cecilia Piñero Gil.

the term — i.e. those that bear the greatest relation to what Europe experienced in Futurism, the Ultraist movement and Machinism. They even introduced elements which in that period were seen as extramusical, for example the small bells worn on the wrist and the creative use of written music.

As with her brother's painting, the formal relationships with Futurism are plain to hear, however they don't shy away from traditional media, for which Rusollo criticises Pratella in *L'arte dei Rumori* (Art of Noises). In Carmen's case, timbral expansion is limited to a small bell or rattle accompanying the piano, which was no small thing.

Audio sample: Carmen Barradas. *Esperando el coche (para piano y cascabel)*. 1923
[Performed by Patricia Pérez, Laboratorio de Creaciones Intermedia, 2013](#)

Carmen's musical notation focused on the sustained use of the piano pedal, making the piece expand and vibrate beyond the notes. André Cavier, in an analysis of Carmen's work in 1937, said "Carmen Barradas combines three magnificent forces, which are the ocean, the organ and bells, whose acoustic meaning is latent, in a profound vibration for the space."³⁸

In 1928 Rafael fell ill and returned to Uruguay with Carmen. A few months after returning, he passed away and Carmen began working as a music teacher and compiled a book of children's songs. After *Prayer (Oración) de Santos Vega*, devoted to her brother, her musical production diminished, moving away from the precepts she had followed in Barcelona and Madrid, until, in 1934, she disappeared from the stage altogether. She did, however, continue to write pieces for children and kept in touch with other artists, such as the poet Rafael García Lorca. After her death in 1968, her entire legacy was donated to an alms-house in Montevideo, temporarily erasing her from the history of twentieth-century music.

Audio samples:

- Carmen Barradas. *El molinero*. Composed in Madrid in 1922 and first performed in Montevideo on 09/11/1933 by Carmen Barradas' female student choir.
[Performed by Coro Departamental "Paulina Sastre de Pons", directed by Ana Conde and accompanied on piano by Héctor Fuentes, 18 March 2015](#)
- Carmen Barradas. *Zíngaros* (for piano and silver bracelet with multiple bands). 1922.
[Performed by Patricia Pérez, Laboratorio de Creaciones Intermedia, 2013](#)
- Carmen Barradas. *Santos Vega*. 1923
[Performed by Tosar Errecart, on Carmen Barradas, 1976](#)
- Carmen Barradas. *Fabricación*. 1922
[Performed by Néffer Kröger, Recital Barradas held on 30 March 1995 in the Museo Municipal de Bellas Artes Juan Manuel Blanes, Montevideo, Uruguay.](#)
- Carmen Barradas. *Esperando el coche* (for piano and rattle). 1923.
[Performed by Patricia Pérez, Laboratorio de Creaciones Intermedia, 2013](#)

³⁸ CAVIER, André: *Juicios críticos, Fabricación, Carmen Barradas*, Montevideo, 1939. Quote from the article by Carmen Cecilia Piñero Gil

9. Joan Salvat-Papasseit. Columna vertebral: sageta de foc. 1919

“al meu germà

LLUITA X BELLES GESTES I ACCIONS :
Eterna espiral vers l'Infinit.
VICTÒRIA
VOLUNTAT X UN DESIG BOIG DE
CÓRRER; i córrer sempre als cims, així
com fuig la cérvola.
JOVENTUT

Un jaç arran de la carretera
per als vells i els que cauen.
-NO HI VULGUEU SABER RES;
si acàs, que ells mateixos s'aixequin.

Hi ha un HOME a la presó
dels que avancen.
JUNTEU-VOS,
traieu-li l'embaràs que li oprimeix les
mans.
PERQUÈ FACI CAMÍ.

Al desencoratjat no l'atieu.
Ni al fanàtic absurd.
Deixeu-los barallar,
que es destorbin a ells sols.

Experiència,
moral,
sistemes de govern,
sistemes filosòfics,
religions:
SOFISMES

Sofismes els sofismes per als qui només
veuen amb els ulls del cervell.

Mes... si cal governar i dirigir,
agafeu una tralla.
Us estimaran més, i àdhuc obeiran.
-NO VULGUEU GOVERNAR.

Amunt! Amunt! Encara més...
A on anem? No és bo preocupar-se'n.

Suara ha sortit del niu un oronell.
-AIXÒ JA ÉS UN CAMÍ.

SEMPRE AMUNT!" ³⁹

“to my brother

THE FIGHT FOR beautiful deeds AND
ACTIONS = Eternal spiral towards the
Infinite.

VICTORY

THE WILL FOR A WILD LONGING TO RUN;
run forever to the hilltops, run like a
deer.

YOUTH

A grave on the roadside
for old men and men that fall.
-YOU DO NOT WISH TO KNOW;
in case they get to their feet alone.

A MAN is in prison
among those advancing.
UNITE,
Break the chains oppressing his hands
SO HE CAN CONTINUE TO WALK

Do not care for the spineless,
or the farcical fanatic.
Let them fight,
alone they will obstruct one another.

Experience,
moral,
systems of government,
systems of philosophy,
religions:

SOPHISMS

³⁹ Joan Salvat-Papasseit "Columna vertebral: sageta de foc" in *Poemes en ondes hertzianes*. Mar Vella. 1919

https://archive.org/details/bub_man_bf5975f5a49_09dfdc3b2c46e6dbe0c19/page/n2

Sophisms, sophisms for those who see
only with the eyes of the brain.

Yet... if we have to govern and
manage,
pick up a whip.
They will love you more, even obey.
-YOU DO NOT WISH TO GOVERN.

Upward! Upward! Further upward...
Where are we going? Worrying about it
does no good.

A swallow flew the nest a moment ago.
-THIS IS NOW A ROAD.

FOREVER UPWARD!

Audio samples: Xavi Rodríguez Martín.
Visual artist // As a radio artist,
researcher and cultural producer, I've
worked on the radiophonic project
Fluorescer and combine my art work
with teaching at the Blanc de Guix
creation space. From painting to
printmaking, via the book and the role
of the radiated word, my trajectory has
been shaped by constant formal
change and disillusionment.
<http://xavirodriguezmartin.com/xavi-1.html>

10. *Greguerías onduladas*. Ramón Gómez de la Serna

All this interest in vibration in the first third of the 20th century stretched beyond painting and artists' fascination with waves and continued to expand until it was torn apart by the Spanish Civil War in 1936. In 1919, Joan Salvat-Papasseit wrote his *Poemes en ondes hertzianes* (Poem on Hertzian waves), with illustrations by Torres-Garcia and a portrait of the poet by Rafael Barradas. This publication featured the poem *Sageta de Foc*, entailing Arrow Fire, which you can hear being recited by Xavi Rodríguez in chapter 9 of the podcast. In 1927, Ramón Goy de Silva wrote *Ondas Hertzianas* (Hertzian waves), which you can also hear being read by María Salgado, was published.⁴⁰ An article published in 1925 in the magazine *Ondas* (Waves) argued that

“for many people, radioelectricity in general and radiotelephony in particular represent little more than fads. They are judged a little like fashion: an inevitable crisis of modernism that needs to suffer, if it is brief, and which needs to adapt, if it endures. Yet there are few that truly interpret the philosophy of radioelectricity, and it is this science that constitutes progress. Radioelectricity signals a step further towards this liberation. As in the case of electricity, its production (emission) and use (reception) are tributaries of matter. But its propagation — and here is the innovation — is in principle independent from matter. However the intellectual and moral influence of this evolution is considerable and can be summed up in one sentence: electricity has separated thought from the energy of matter.”⁴¹

In the very same year as that article was published, the artist Ramón Gómez de la Serna began broadcasting his *Greguerías onduladas* on Unión Radio. A *Greguería* is a sort of aphorism, a short statement that is both poetic and philosophical. So the title could perhaps be translated as an undulating aphorism or an wavy musing. In this collection of short pieces the artist expounded his thoughts on electromagnetic nature in a poetic and humorous language that led him to assert, for instance, that “I constantly make a note of a multitude of strange sounds wrapped in waves. Therefore, I archive and collect my scientific material for the day when I write a two volume book about The Radiated Silence”.⁴²

In a recent edition of *Greguerías onduladas*, Nigel Dennis explains that Gómez de la Serna's output can be split into different stages: the first, which was supported by text, the second from 21 November 1929 onwards, when he installed a microphone in Madrid's Puerta del Sol and narrated everything he saw live, and the third, which we can only glean through testimonies, when, in 1930, he created the workshop of *greguerías* by installing a microphone at home:

“Some time ago my dream was to have a private microphone,” he wrote, “but I needed to be cured from wanderlust and devote my time to that sacred monstrosity of the word. Today I now have the microphone of my dreams set up and I feel like a priest from the goddess Radio, that goddess I have knelt before since the day of its advent. On my cards, although I never gave myself any post, I will write under my own name, in esteemed italics *Possessor of a private microphone in universal duties*. This

⁴⁰ Ramón Goy de Silva. *Cuenta de la Lavandera*, Vía Iris, Antenas siderales de la editorial Biblioteca Rubén Darío in Ávila in 1927.

⁴¹ VVAA. *Ondas Madrid*. 01/06/1925. p. 5 <http://bdh.bne.es/bnearch/detalle/0003567864>

⁴² Nigel Dennis Ed. *Ramón Gómez de la Serna. Greguerías onduladas*. El clavo ardiendo. Sevilla 2012. p. 28.

flamboyant title obliges me to do a great deal, to non-stop surveillance, to a duty replete with responsibilities. It is the first intimate and permanent microphone a writer possesses with a link to the central stations and with the right to intervene amid broadcasts".⁴³

The installation of the equipment in his house led him to imagine open mic sessions, where music and interviews are mixed together in total blindness, a separation that acknowledges people on the other side of the airwaves. Below are some of the pieces broadcast between 1925 and 1929.

"Waves had to smell of thyme"

"That waltz had been played so often in our headset that it was now playing in our heads as though it had pierced our brain reel"

"The radio speaker fans words to listen to"

"When the artist has finished the door of the ether can be heard opening and closing again"

"Often, at times without possibility, I leave my equipment open only to know how the air breathes electrically, how its nervous system buzzes"

"Speaking on the microphone you enter a medium that is neither air nor water, but from which you leave soaked from ether. I shake myself dry like a duck upon leaving the broadcasts"

"In the future, waves from a good dream will be emitted. In other words, when we are asleep we will receive patterns of hope, true electrical guides for nervous clairvoyance"

"In the brambles of Nature there are lost waves. All those we don't hear. All those alterations of silence that we believed were due to our equipment were actually entangled from the waveform that became ensnared and remained with the whole bun of a record, the whole stocking of a dance".⁴⁴

Audio sample: kwahmah_02. *The first fourteen minutes or so of a German-language broadcast of shortwave station Voice of Korea. November 22, 2014*

⁴³ Nigel Dennis Ed. IBID. p. 44.

⁴⁴ All gregerías belong to Nigel Dennis Ed. IBID. pp. 77–136