

# ZEITGEIST

*An eolian sound art project, listening to the landscape and the spirit of the times*

Virgile Abela



*Single, serial or multiple synesthetic experiences,  
they all take up the vibrations of the air  
transforming them into the music of the wind*

*The instruments and the environment  
work together,  
plunging our perception of reality  
into a meditative, vibratory fiction*

*A holistic invitation  
to inhabit the landscape differently*

*Each of ZEITGEIST's forms is distinguished by a #\_.  
The result is installations, performances, films and organological  
innovations in the fields of land art, urban art and sound or  
art & science creation.*



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## Zeitgeist\_ > instruments



**Harp-Plank (2020)**  
H: 2m20 / W: 20cm  
5 polyester strings  
electro-amplification by  
2 piezoelectric pick-ups



**Circular Harp (2020)**  
H: 3m / D: 48cm  
16 polyester strings  
electro-amplification by  
8 piezoelectric pickups



**Circular Harp (2023)**  
H: 4m / D: 52cm  
16 polyester strings  
acoustic amplification  
wooden resonator



**Long string & electro-amplified bow (2021)**  
1 stainless steel string L: 30m / D: 1mm on 16-inch tom bass + sennheiser pickup  
carbon double bass bow, horsehair replaced by a guitar string + piezoelectric pickup



**elded steel pavilion (2023)**  
L: 2m / gD: 1.2m / pD:30cm  
long string acoustic amplifier  
on membrane  
(sound device in progress)



**Simple ceramic pavilion**  
3D printed (2022)  
H: 85cm / gD: 50cm / pD:12cm  
long string acoustic amplifier  
on membrane  
(sound device in progress)



**Ceramic double pavilion**  
3D printed (2022)  
H: 85cm / gD: 50cm / pD:30cm  
long string acoustic amplifier  
on membrane  
(sound device in progress)

Zeitgeist#1 > Installation\_film/

Ensuès-la-Redonne, April 2020 > [https://youtu.be/zscn5b\\_NrjU](https://youtu.be/zscn5b_NrjU)



## Zeitgeist#2 > Installation /

Augmented cruise on the Rhône\_ October 2020

16-string harp and ORTF recording, ON-octobre numérique festival, in Arles



Field recording of the harp with the bioacoustic ambience of navigation.

Control room, public listening with headphones, aboard the BlackBeeBoating



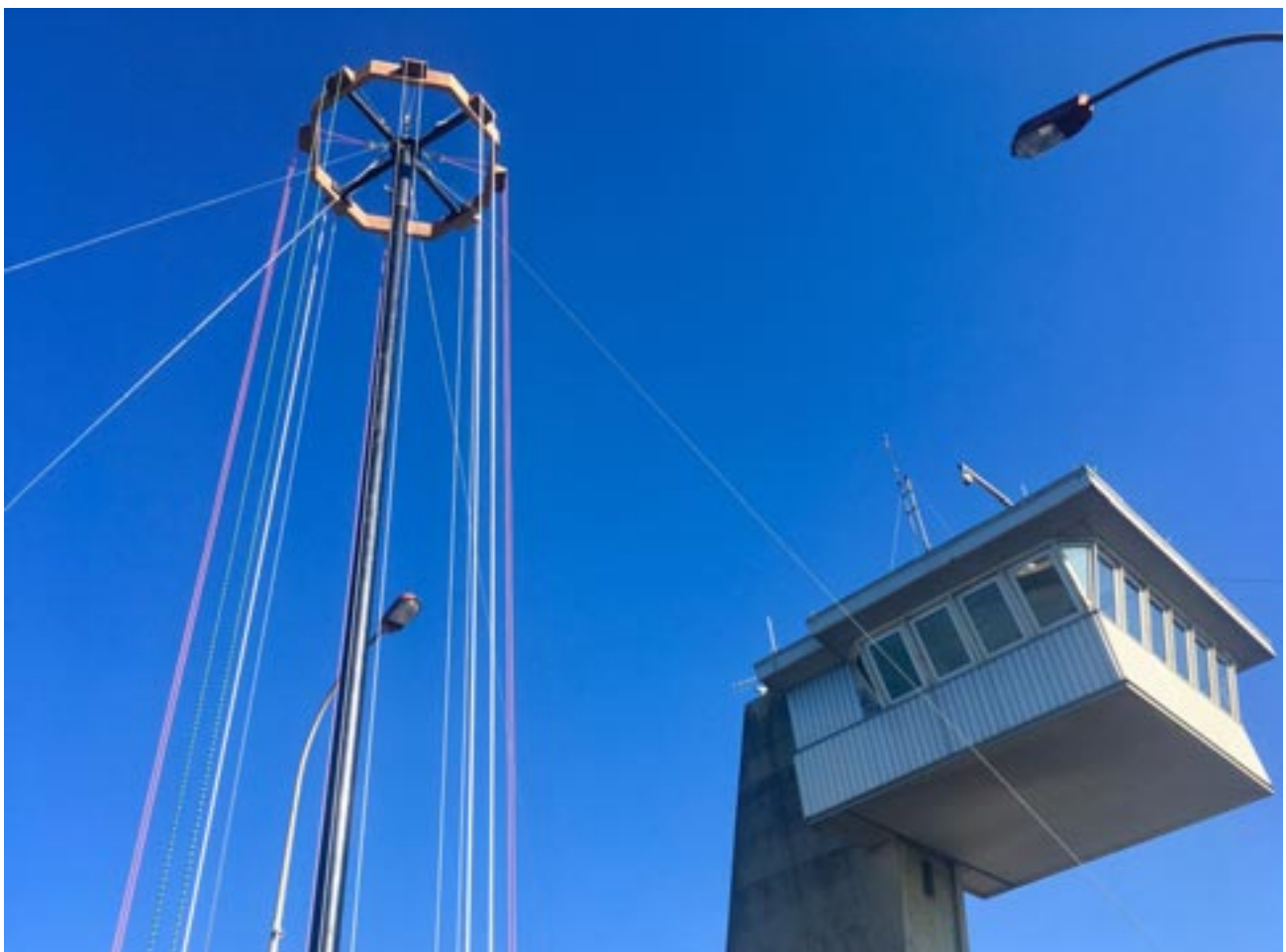
Zeitgeist#2 > Film /

Augmented cruise > <https://youtu.be/Ohr2D0Q7Q4g>



Zeitgeist#2 > Film /

Timelapse Augmented cruise > <https://vimeo.com/470161910>



## Zeitgeist#2 > Installation /

Residence Station Flottante \_ July 2021

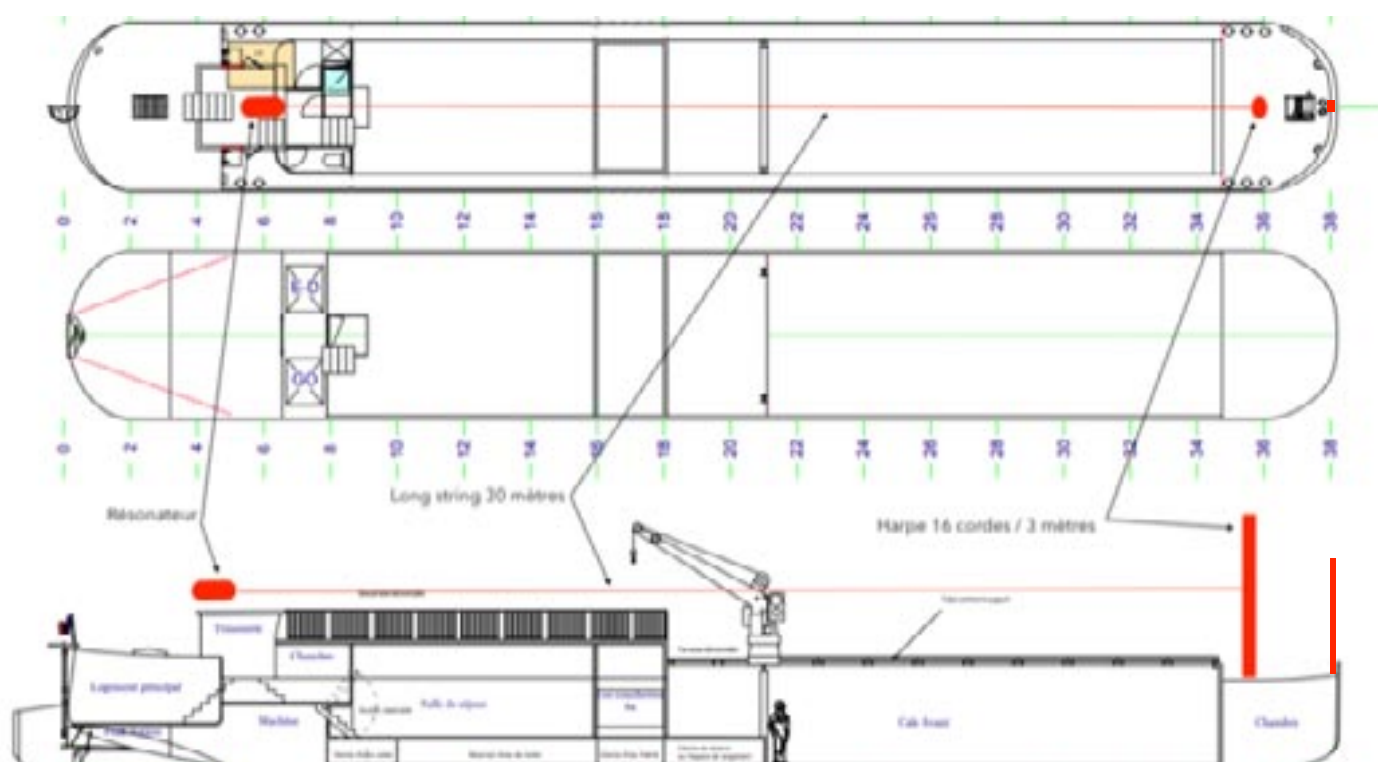
16-string Harp, 5-string Harp, Long String \_ Resonator & Bow

+ Film de l'Oise à la Seine > [https://youtu.be/\\_xLA8\\_xdveM](https://youtu.be/_xLA8_xdveM)



15 days on the Oise, the Paris canals and the Seine, from Longueil-Annel to Evry, where the public are invited on board or on the quayside to listen to the harps in different forms, with headphones or sound systems, at the Garage MU, Sonic Protest, Mutant Radio and Bellastock festivals.

Map of the installation, le Thabor, UrbanBoath & Station Gare des Mines



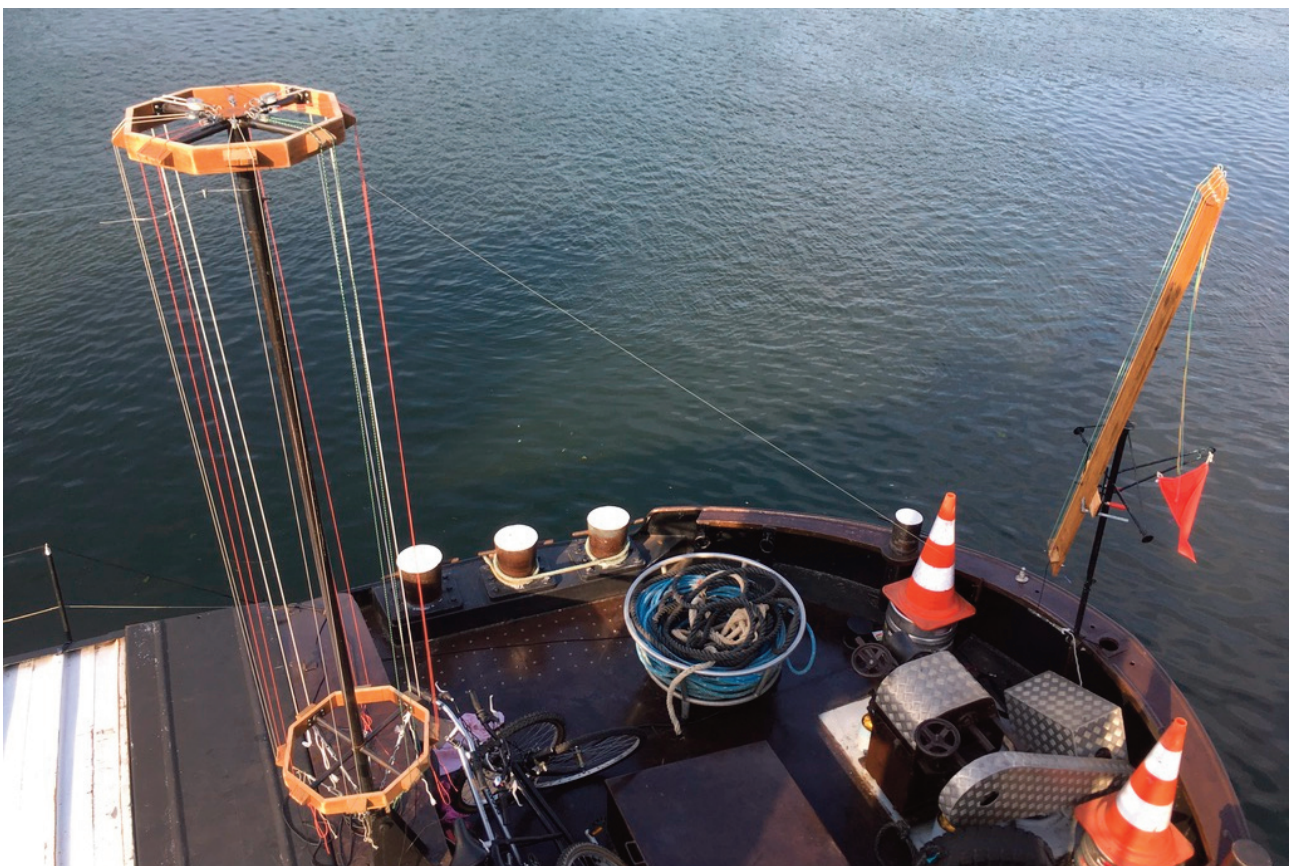
**Zeitgeist#2 > Installation /**

Garage MU festival & Sonic Protest, Paris 19ème



**Zeitgeist#2 > Installation /**

Belastock Festival & Placard Festival , Quai du Halage, Evry

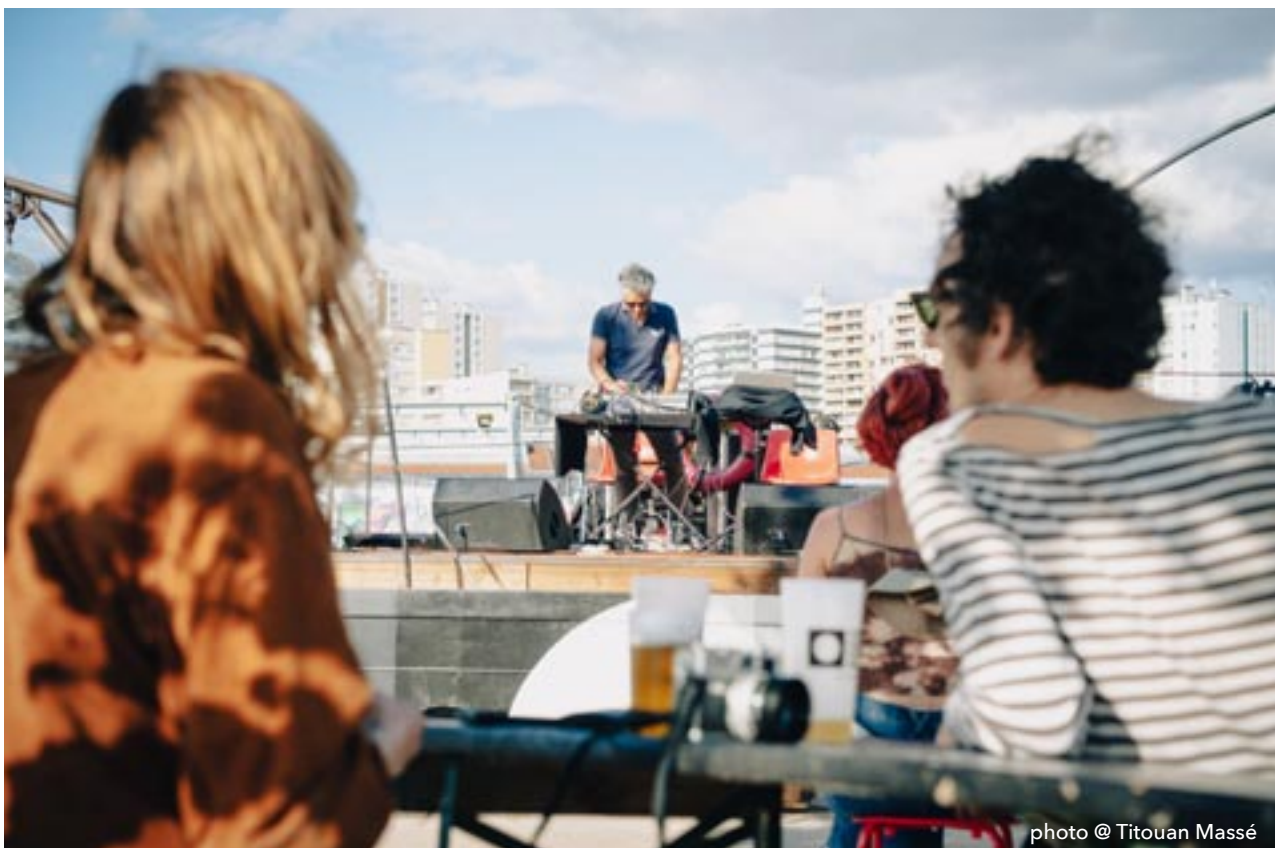




**Zeitgeist#2** > Performance // Garage MU Festival \_Station Gare des Mines, Paris.  
Recording of the performance (extract) with Nicolas Defawe>  
<https://youtu.be/tDuzv2l4G94>



Performance of sound with the eolian device, treatment of the harps by max/msp.  
Listen to Mutant Radio field recording here <https://www.virgileabela.com/stationflottante>



**Zeitgeist#2 > Installation /**

EXPERIMENTA biennial, Grenoble\_October 2022

Hexagone, Scène nationale art science de Meylan

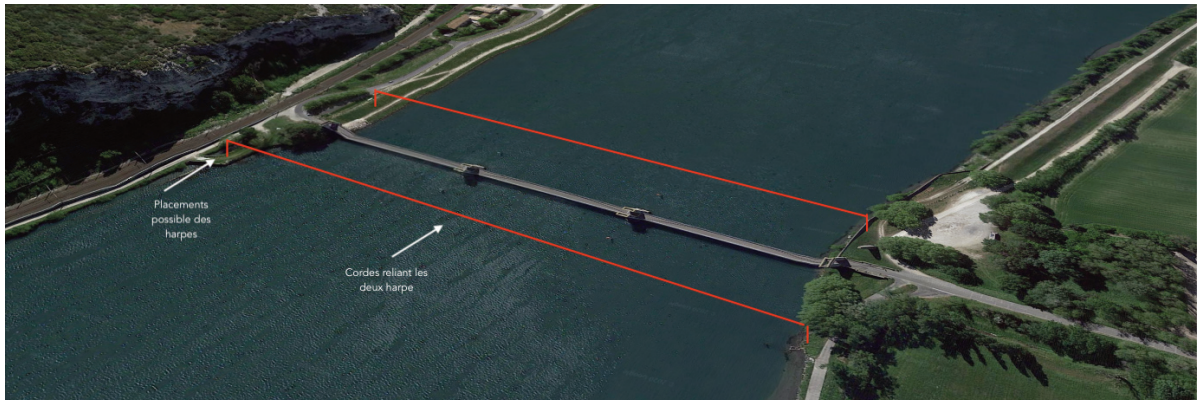
Parvis du Centre d'Etudes Atomiques



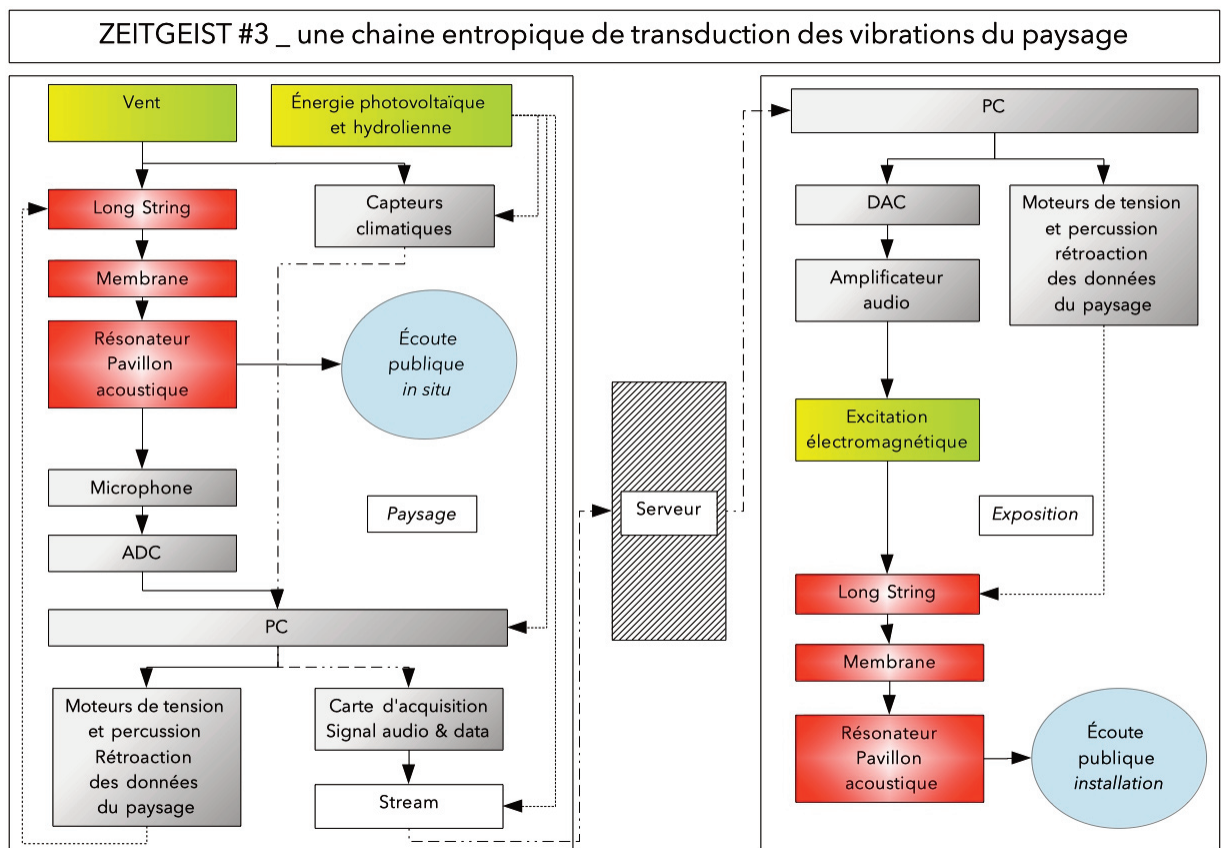
Binaural recording >

<https://soundcloud.com/virgile-abela/zeitgeist-demo-binaural>

**Zeitgeist#3** > a double installation of land art and digital art / a new project. This 3rd research project consists of taking hold of the entire atmospheric volume of a landscape by means of a long string across a river, canal or lake, in order to extract its vibration and excite an electromagnetically inverted device in real time, in an exhibition room.



The idea is to offer the vibrations of a landscape in a form of "quantum ubiquity", as a free interpretation of the principle of entanglement, addressed to a single audience present in two distinct locations, one in the middle of nature, the other in the middle of culture. This double appearance seeks to link the audience's inner listening to an unbroken exogenous vibration, inviting them to a holistic awareness of their relationship to the world between nature and culture, through the aesthetic experience of an entropic chain of transduction, from the landscape to the exhibition space. The device will react to variations in the data captured in the landscape to modulate the flow of sound by varying the tension of the string, the amplitude and voltage of the electromagnet, and then the data thresholds to hammer the string according to particular events. The interactivity of such a feedback between the work and the landscape will seek a certain animality in the sound behaviour of the installation.



## Zeitgeist#3 >

**Research residency:** MAS (Musique Audio Son) platform at the LMA (Laboratoire de Mécanique et d'Acoustique du CNRS) Technopole de Château-Gombert in Marseille, La maison de la Tour-le Cube art centre in Valaurie, and the 8fablab in Crest.

### Art & science aims:

> **To create large ceramic and sheet metal resonators** designed according to the frequency bands required, so that the shape of the horns reflects the shape of the sound produced. They acoustically amplify the sound emitted by a membrane excited from a Long String, excited according to the movement of the air. Unlike other instruments, its single horizontal string measures several dozen metres, offering greater harmonic richness.

> **Create a device for streaming the signal and data** from the landscape to transport its vibrations in real time around the exhibition hall.

> **Create an electromagnetic excitation system** for the inverted device in the exhibition room using the audio signal and climatic data streamed in real time in the landscape.



3D ceramic printing Virgile Abela and Yoann Demichelis, 8fablab Crest

### Zeitgeist#3 > promotion and scientific backing

*This project is in line with the LMA's research into the physics of musical instruments. The originality here lies in the design of a wind instrument and a string instrument. This instrument is self-oscillating and highly non-linear, so predicting its behaviour or simulating it is a real challenge for the scientist. What's more, the actual construction of the instrument raises issues that are unprecedented in instrument making, in terms of the use of new materials and manufacturing processes, such as 3D printing of a double ceramic bell based on a physical model generated by an acoustic optimisation algorithm. Lastly, the fact that it will be set in the landscape means that it will have to be scaled up from a metre in the case of a traditional instrument to a hectometre in the case of this one, which represents a real mechanical challenge. This project will provide an opportunity for scientific exchanges between the SONS team and the Materials and Structures team at the LMA.*

Patrick Sanchez and Etienne Gourc, engineers - researchers  
CNRS Mechanics and Acoustics Laboratory



construction metal Etienne Gourc, META2 workshop, Marseille

## **Zeitgeist#4** > Installation\_film\_land-art

Installation > An aeolian organ with 9 acoustic harps, 72 strings.

Altitude 1300m\_Height 4m\_Diameter 28m\_Circumference 88m

**film** > Zeitgeist#4 <https://vimeo.com/838724284> (drone pics@Dimitri Lionel)



**land art** > 17th Horizons-Sancy festival.

**Exhibition** open to the public at the top of the Lagarde hill in Montgreleix (15) at 1300 meters high, from 17 June to 17 September 2023.

### **Design**

Virgile Abela

### **Construction**

Virgile Abela Etienne Gourc Guillaume Fetas Stéphane Lupetti Valentine Guillien

### **Instrument resources**

Didier Ferment Olivier Villefranche  
MAS platform LMA-CNRS

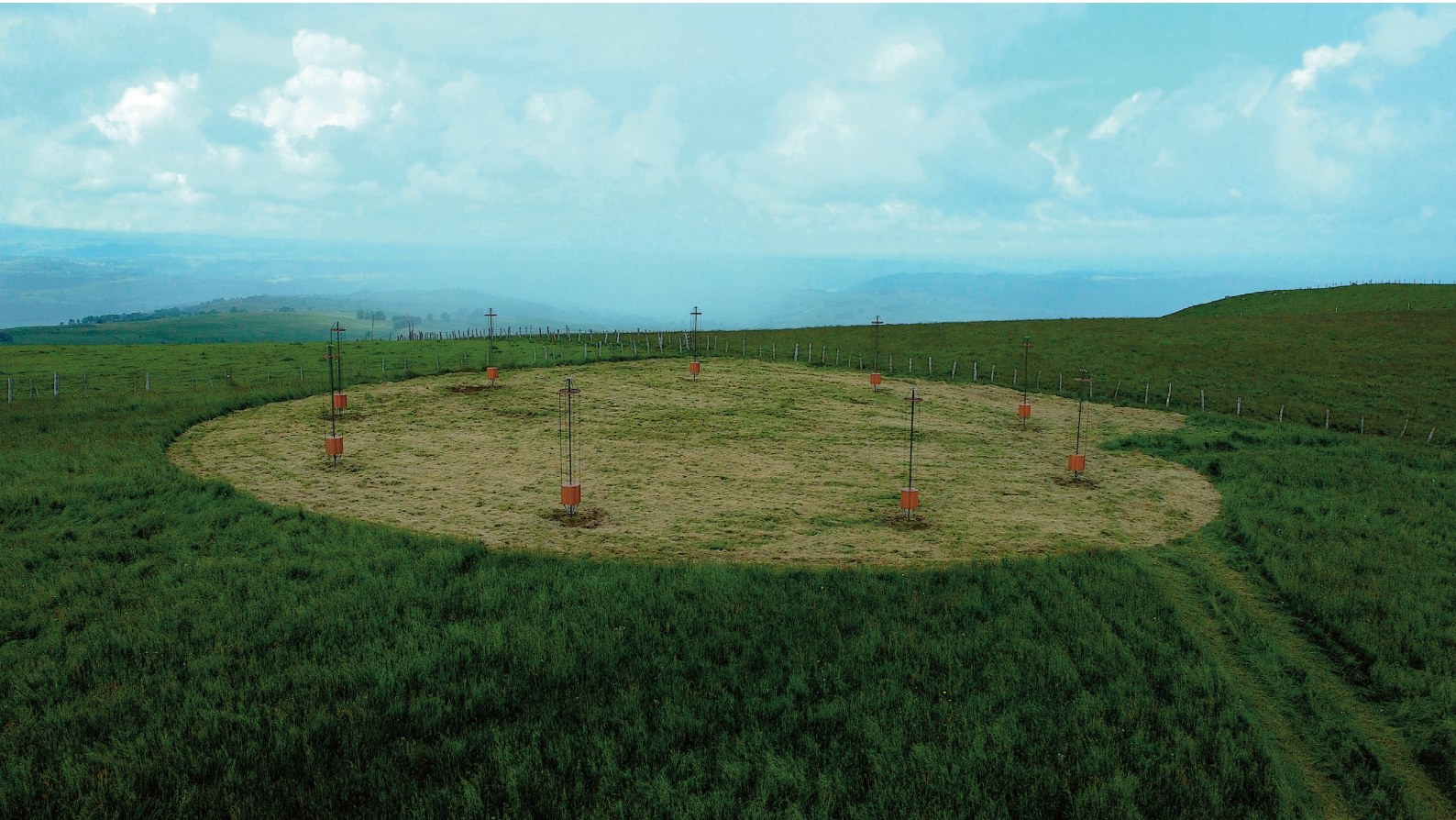


**Zeitgeist#4 > land art installation /**

Horizons-Sancy festival 2023

Colline Lagarde, Montgrelix

photo drone @ Dimitri Lionel



**Zeitgeist#4 > land art installation /**

Résonances, an artistic journey in the Drôme, banks of the Rhône

Maison de la Tour-le Cube, Angle art contemporain, Donzère Town Hall







Zeitgeist#\_ > press pack /

Publication / April 2023 > Review edited by Louis-José Lestocart

With the support of the European Creation Incubator and Transculture

Article on Zeitgeist > <https://online.fliphtml5.com/xgdeo/rwxt/#p=109>

LINKs-serie 7-8 Paul Valery > <https://online.fliphtml5.com/xgdeo/rwxt/#p=1>



Talks / July 2021 > Ecouter le vivant et le parlement des choses

Hosted by Arnaud Idelon, with Pascal Ferren (Parlement de Loire), Claire Luna (curator, on water as a plastic element), Nicolas Chapoulier (3615 Dakota), Virgile Abela (resident artist Station Flottante) and Louis Guillaume (visual artist)

Radio Station-Station for the Bellastock Festival, Evry on July 17, 2021



Presse 2023 >

Photos GEO Magazine Juillet 2023 > [ICI](#)

Article Journal La Montagne 25/06/23 > [ICI](#)

Interview vidéo journal La Montagne 16/06/23 > [ICI](#)

Interview vidéo Festival Horizons-Sancy July 2023 > [ICI](#)



**Zeitgeist#5** > architecture & heritage /

Transforming a building into an aeolian sound instrument (project under study)



Cable in which the sum of vibrations produced by the ropes installed on the facades is transmitted

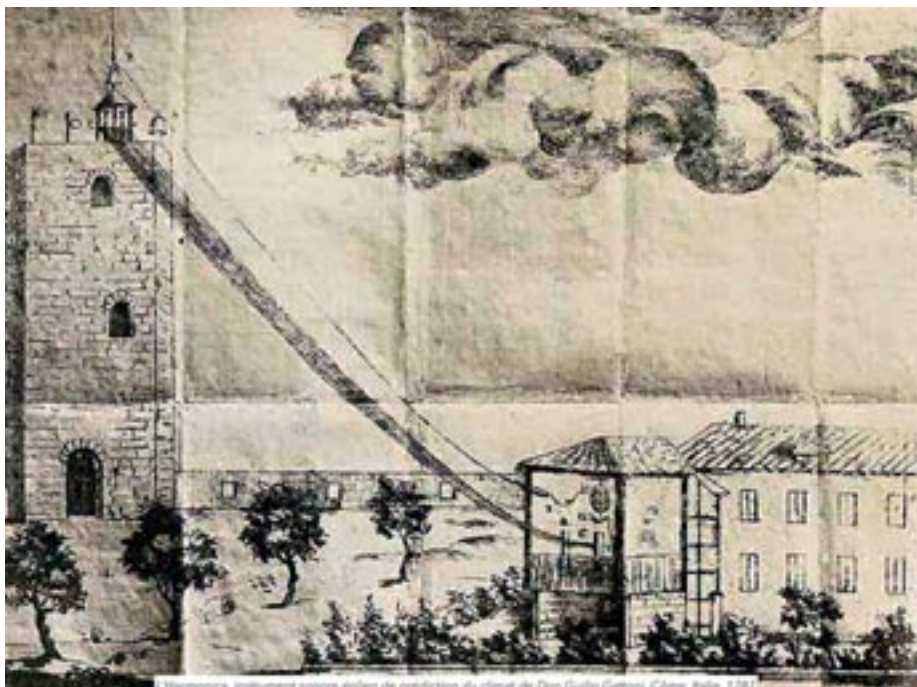
Pendulum - Freely oscillating resonator diffusing sound from the cable



## Zeitgeist#\_ > Inspirations

ZEITGEIST combines two words: ZEIT [time] and GEIST [spirit], translated as “the spirit of the times” in French. It designates the main lines of thought or rumor of an era at a given moment. Although historically attributed to a current of German philosophy at the end of the 18th century initiated by Herder, opposing the idea of Kantian immanence or that of progress dear to the Enlightenment as a hypothesis of truth, this concept appears already in the literature of Shakespeare or Machiavelli in the 15th century as the expression of forces which inevitably clash in a historical movement. Demonstrating, depending on the era, a polysemic capacity to embrace the different issues that animate them, he is at the same time the emanation, the revealer and the manifestation. The use of the word ZEITGEIST periodically returns in the history of the human sciences as a rhetorical tool capable of serving new disciplines; the term is then used by Marx then Schumpeter in economics, by Durkheim and later by Weber in sociology, then by Jung in psychology and not only among German speakers. Edgard Morin, Luc Boltanski, and the American filmmaker and activist Peter Joseph have made clear reference to it.

By dint of paroxysmal mutations, ZEITGEIST is lightened from its original substance in favor of a support for the intuition of the present, operating as an indicator of thought more than of a homogeneous concept, without being dispossessed of its own history. It then manifests itself in cyclical appearances charged as much with memory as with amnesia, and comes to life like a flow through time in the subjectification of a look at the world, to reveal like a vibration, a poetic potential of which it It's a question here of seizing.



Experimental device for climate study using Long Strings by Don Giulio Gattoni  
1787, Torre Gattoni, Como, Italy

**Zeitgeist#\_ >** sound ecology\_quantum physics\_deep listening /

**ZEITGEIST** is part of current concerns inherited from sound ecology, a concept theorized by the Canadian Murray Schafer at the end of the 1970s, bringing together all kinds of fields preceded by the mention "sound or acoustic", such as anthropology [ sound], bio[acoustics], archeology [sound], landscape [sound], in amplified forms [field recording, acoustic surveys, sound performances], or even acoustics [sound walks, sculpture, installation, music playing with the acoustics of the place, etc...]. Based on the observation that since the invention of recording we now have documents capable of testifying to our impact on the environment, Murray Schafer opened up an interest more than 40 years ago that has today been reactivated by current ecological concerns as much as by forms of alienation resulting from digital technologies. Its many fields combine arts, sciences and traditional knowledge. In this respect, aeolian sound art is an ancestral example.

**Today, many artists use living things as subjects of research,** aesthetic objects or technical innovations. Some of them, such as Gordon Monahan or Didier Ferment, continue to explore Aeolian sound art, the oldest traces of which date back 20,000 years.

**His process echoes quantum theory** according to which all matter can be described by the vibrations of a wave function. These waves of matter combine together in packets, they constitute a whole with which we resonate when we observe them, disappearing immediately as soon as we turn away from them, then reappearing differently as soon as we pay attention to them again. By challenging our representation, quantum physics leads us to abandon the idea that any point of view - or escape - can be a sign of our prevalence over anything. In the same way, the synesthetic experience of air transduction invites us to break with the idea that nature can be mastered or possessed, in favor of a holistic vision of a living being in which we are subject to the same title than everything that composes it.

**Finally, the project presented here is particularly situated in the dimension of deep listening** - or in-depth listening, a concept theorized by the composer Pauline Oliveros in the field of sound ecology - as a discipline soliciting an inner consciousness involving the psyche of the listener.