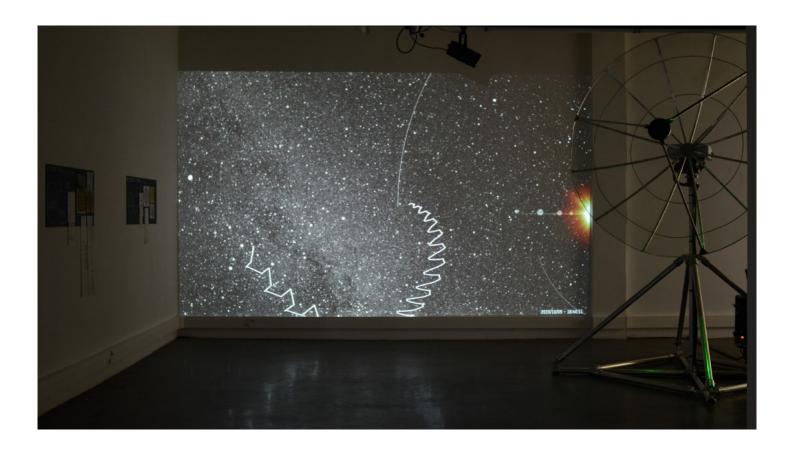


# **AXIS MVNDI**

# **NICOLAS MONTGERMONT**





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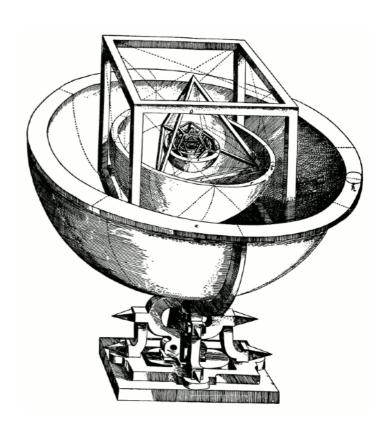
# PRESENTATION

# **SYNOPSIS**

Axis Mvndi is a device that **broadcasts radio waves in space in order to draw shapes at a cosmic scale**. By playing on the position of the antenna and broadcasting duration, ancient cosmological models are materialized into space and become autonomous shapes in infinite movement. Axis Mvndi proposes a theoretical and artistic shift on the use of the electromagnetic spectrum through the broadcasting of waves that will never be received. They are used for their greater specificity: their traveling at the speed of light.

The shapes drawn by Axis Mvndi correspond to representations of the universe imagined during antiquity:

Babylonian constellations, seas of the Hindu cosmic egg, Greek burning wheels or Norse Yggdrasil. Using modern techniques to project these figures in space, Axis Mvndi is positioned as a poetic realization of these ancient representations.



## **STATEMENT**

« Axis Mvndi questions a radical artistic gesture: the broadcast of a signal towards the cosmos without any receiver. This work is a continuation of my fields of research on waves: how can we create a physical and imaginary link between an individual and the distant cosmos? How can these orders of magnitude can be expressed sensitively instead of mathematically ? How the relatively simple and old technique of radio broadcast can create new artistic forms ?

These invisible waves, we use them constantly: in our smartphone, with Wi-Fi, or in our contactless visa card. But with the complexity of our tools we are detached from their almost mystical intrinsic power: their phenomenal speed. In Axis Mvndi, this characteristic is used to its maximum potential and set in a cultural perspective of complete and coherent representations of the Universe.

The field of work is the poetry of the wave: how to create an aesthetic of the broadcasting of electrical energy? Axis Mvndi offers an answer by combining the fields of cosmic, ancient anthropology and radio technology in the form of an installation that will touch the cosmos. »



# **COSMOLOGICAL REPRESENTATIONS**

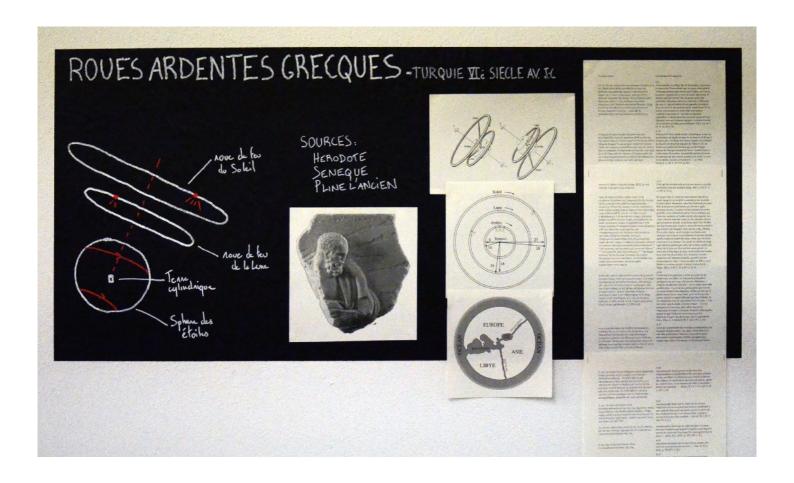
Axis Mvndi uses radio waves to materialize ancient representations of the Universe. These models are attempts to describe the structure of the Universe, at the intersection between religion, philosophy and astronomy. This confrontation between an ancient thought and a modern technique allows these cosmological models to take on a consistency, to incarnate in our reality under the shape of electromagnetic energy.

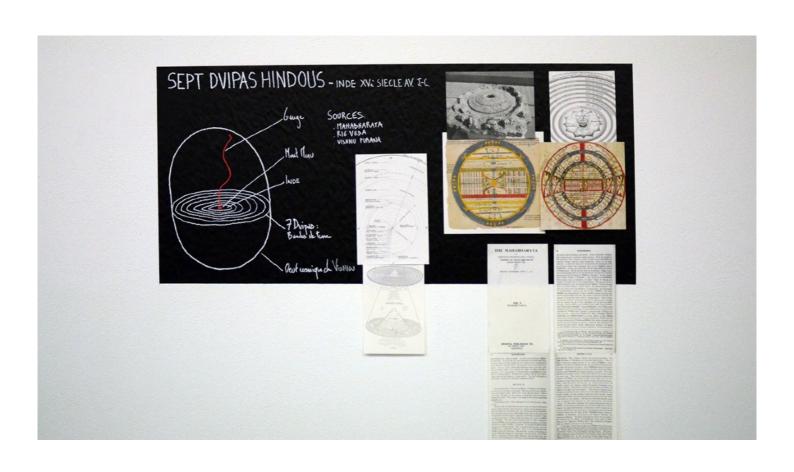
# Modèles cosmologiques

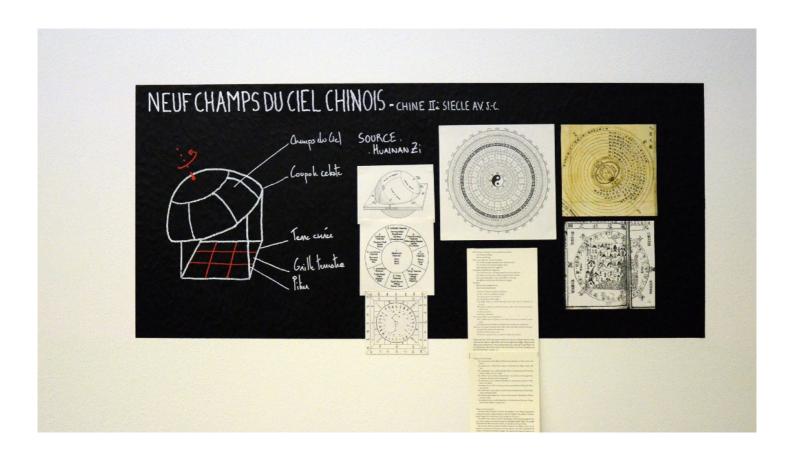
The chosen cosmologies come from various cultures of Antiquity or the Middle Ages - Asia, Africa, Middle East, Europe - representing the diversities of conception of the Universe. They were selected after a research work in ancient anthropology and an analysis of their feasibility using a radio wave.











#### RADIO WAVE AS COSMIC MATERIAL

"No more broadcasting, no more art-radio.

The point is transmission itself: radioart is radiation art."

Collectif STWST d'après Tetsuo Kogawa, 2016

# **Comsic scales**

Axis Mvndi exploits radio waves for their immense propagation speed<sup>1</sup>. Thanks to this property, they are a material usable at a cosmic scale: Earth / Moon / Sun / planets / stars. As they travel through space, they reach and then exceed the "real" dimensions of the cosmological representations that they embody, becoming a life-size ethereal substitute for these elements. Fire wheels, crystal spheres, infinite seas are materialized in an electric oscillation propagating indefinitely in time and space, creating cosmic electromagnetic sculptures in perpetual evolution centered around Earth.

These waves are invisible to human eyes because of the limitation of our senses. In this way, they respect the nature of the models imagined by the ancients to represent the world: underlying imperceptible structures, impregnating reality. From this perspective, they are close to the Zen koan: "If a tree falls in the forest but no one is there to hear it, does it make noise?2 ».

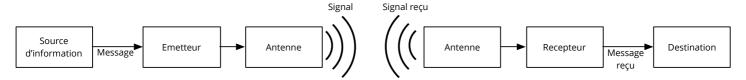
An electrical energy is actually sent into space creating **a physical link between an individual and the cosmic immensity**. This artistic gesture appeals to everyone's imagination to project themselves into the path of the wave. A vertigo of dimensions that allows us to consider in a sensitive way scales inconceivable outside mathematical abstraction.

<sup>1 ~ 300 000</sup> km/s

<sup>&</sup>lt;sup>2</sup> Attributed to the philosopher Georges Berkeley A Treatise Concerning the Principles of Human Knowledge - 1710

# **Transmission arts**

Radio waves are usually transmitted in a telecommunication logic: the sending of information to a geographically distant point. Image, sound, voice, text, data ... are encoded in the radio signal to allow a receiver / decoder to retrieve this information.



Système de communication selon la théorie des l'information de C. Shannon<sup>1</sup>, adapté aux radiocommunications.

This usage is questioned by radio art, particularly in the last twenty years. These creative fields seek to define the radio arts, to reinvent radio or to imagine the future of artistic practices related to radio waves.

Tetsuo Kogawa describes « radio art as an art form whose 'matter' [Materie] is electromagnetic waves.

'Matter' is this case does not only mean tool or stuff, but also the concept in philosophy » ², and focuses on the electromagnetic wave as an artistic material.

In his manifesto in 1998, Robert Adrian X positioned radio art as an aesthetic gesture different from the sound art and musical content of the wave by shifting it to what is specific to radio:

"Radio art is not sound art - nor is it music. Radio art is radio" 3.

In his editorial on the genesis of the WAVES festival, Armin Medosch describes the emergence of these new artistic practices:

« Artists simply shifting away from radio waves as carriers of apparently meaningful 'signals' and turning their attention to the medium, the signals, the waves themselves. » <sup>4</sup>

<sup>&</sup>lt;sup>1</sup> C. E. Shannon « A Mathematical Theory of Communication », The Bell System Technical Journal, 1948.

<sup>&</sup>lt;sup>2</sup> Tetsuo Kogawa dans "Breaking the waves", par Knut Aufermann - The Wire n° 320 - 2010

<sup>&</sup>lt;sup>3</sup> "Towards a definition of radio art", 1998, http://www.kunstradio.at/TEXTS/manifesto.html

<sup>4</sup> Armin Medosch - presentation of WAVES 2006 - http://rixc.lv/waves/en/txt02.html

## Waves without receiver

These considerations show a common direction in the evolution of the arts of transmission - the growing importance of the wave for itself - among which Axis Mvndi occupies a singular place: in Axis Mvndi, no receiver, the waves are only transmitted, never received nor decoded. They do not carry any informational content: the wave is a raw artistic material.

By freeing itself from the content of the wave and the receiver, the positioning of the work is profoundly radical. In the continuity of the theoretical reflections undertaken but at odds with existing work in the use of the electromagnetic wave: the propagation of the wave is the work.



# INSTALLATION



# **SCULPTURAL ANTENNA**

The installation is centered around a motorized 2m parabolic dish antenna. This antenna is rotating continuously, broadcasting waves in the desired direction to achieve the drawing of a cosmological form. On a wall, a video projection follows in real time the course of waves accompanied by technical information. Anthropological and scientific documentation on cosmological representations is displayed on another wall.

The shape of an antenna characterizes the waves it can emit. Here, only one frequency is sent in a very precise direction, which determines the material, the dimensions and the structure of the antenna. The model chosen is a satellite dish, sculptural element of the emission device visible in the exhibition space. The entire control equipment is arranged in a rack at the edge of the antenna.



# **PROCESSUS**

The antenna, mounted on a rotor, is oriented horizontally and vertically according to the shape of the cosmological model executed. The installation plays on the orientation of the antenna and the duration of emission of the wave, depending on the position and the orientation of the emission location on Earth: **the movement of the antenna is superimposed on the movement of the earth**. This movement is the only apparent action and places the broadcast in a reality perceptible to the visitor.

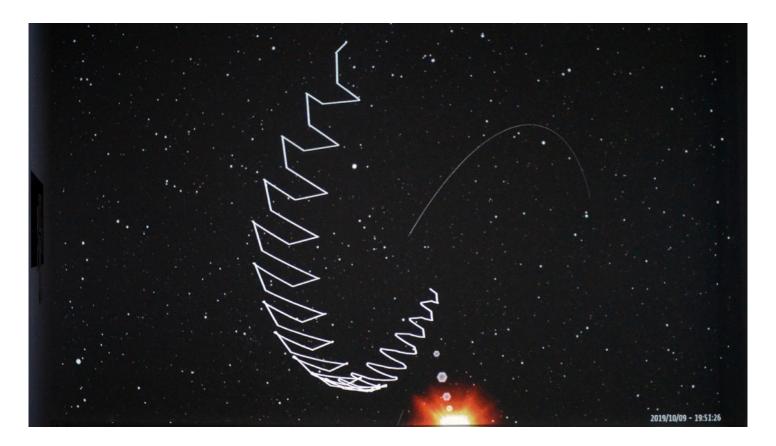
A cosmological model is broadcasted permanently in the installation. Depending on its complexity, the process lasts between a few minutes and half an hour. At the end of the process, a new model is randomly chosen, the video projection is updated and a new sculpture begins.



# **CONTEXTUALISATION**

The video projection displays and explains the current process. It allows to visualize the model that Axis Mvndi is reproducing and the path of the waves already emitted to realize it. On the rack, a series of technical information allows to contextualize the emission: estimated duration of the realization, pointing of the antenna, position of the Earth...

Nearby a wall documents the context of emergence and retraces the history of the cosmological models executed by Axis Mvndi: tables containing texts, diagrams and sketches are produced by the artist following the anthropological research carried out.





# **CREDITS**

Artistic direction and technical development: Nicolas Montgermont

Executive producer: Julien Taïb / Crossed Lab

Co-production: Art Kill Art, Uchronies, Ososphère, Espace Multimédia Gantner

Scientific advices: Jean Claude Patalano, Eric Sambath, Pierre Braissant - CNES

Photos and videos: Léa Erlandes, Nicolas Montgermont

Supported by: CNES / Observatoire de l'espace, Eleonore / StadtWerStatt, CNC / DICREAM, CNAP

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Cheang, Cécile Beau, Valérie Perrin, Thierry Danet, Pierre Piccon, Merryl Messaoudi.





### **TECH RIDER**

The installation is composed of 4 elements:

- a parabolic antenna:
  - footprint: 230cm x 230cm
  - ceiling height: 310cm
- A technical rack 1m3 to be placed next to the antenna: 1 power supply
- A video projection: provide a fullHD video projector with an hdmi cable to connect to the rack
- 5 visual elements to be displayed in the space at eye level, dimensions: 1m x 40cm

# **TRANSPORT**

- 1 fly case 200x65x80cm / 60kg
- 1 fly case 60 x 57 x 50 cm / 20kg

Insurance value: 18.000 €

# NICOLAS MONTGERMONT

# **BIOGRAPHY**

Nicolas Montgermont explores the physicality of waves in different forms. He is interested in the reality of waves in space, the way they move and change, the links between a source and our perception. To this end, he designs devices that create a sensitive exploration of their poetic essence by using multiples materials and techniques: analog, digital or mechanical. He works with sound waves mainly through the vibration of materials and their propagation, natural and artificial electromagnetic waves in the form of radio landscapes, gravitational and sidereal energies through the double prism astronomy / astrology.

He creates installations, often in collaboration with Cécile Beau and formerly in the Art of Failure collective, in which time is of particular importance and allows an intimate appropriation of these materials and energies, he is also active in the audiovisual performance field with chdh and in the experimental music with BCK and Yi King Operators. He has published several editions on Art Kill Art: vinyl, dvd, usb key. His projects are shown in many centers in Europe and elsewhere (Club Transmediale, Elektra, MusikProtokoll, Fondation Vasarely, Palais de Tokyo, WRO, iMAL, PixelACHE...)

Website:

http://nimon.org

# ARTWORKS SELECTION

#### Radioscapes - 2017

Vinvl disc - Art Kill Art

Radioscapes is a record that invites the listener to discover the electromagnetic landscapes that surround us. The two sides of the vinyl propose to listen and to observe two very different radio contexts: the Paris ring road (Side A) and an isolated farm in the French countryside (Side B). In each location, the whole radio spectrum was methodically recorded during a period of two weeks and then transcribed into a single audio track. On each side, an image representing the levels of the received frequencies is printed under the groove in synchronization with the sound.

Radioscapes is an exploration of existing artificial and natural signals.

http://nimon.org/radioscapes

Traversée - 2017

Vibratory sculpture

Traversée is a sculpture installed in the Blanquefort tramway station in the Bordeaux suburbs. It is made of a rail that starts from the tramway rail, meanders on the dock and rise until two meters before going back into the ground. The vibrations caused by the tramways circulating resonate into the sculpture. The spectator can thus touch and listen to the arrival of a tram by simple body contact. Waiting time in the station is transformed into a sensitive time, thanks to the physical link created by the rail.

Traversée proposes an experience renewed every day by revealing all the variations of the arrivals and departures of the trains. It is a device that reveals the sounds generated by the displacement of wagons like a "tuning fork" listening to the line.

http://traversee.xyz

## Radiographie - 2012

Decametric antenna

Radiography is an installation built around a decameter antenna, a telescope that detects electromagnetic waves. The antenna is suggesting distances, it potentially perceives millions of kilometers away, but it receives here and decodes now. More than the source, it gives us to see the shape of these waves. The mass of the received signals is projected on the wall. A playback bar moves inside it and makes us hear different frequencies randomly. During these movements, zooms make us penetrate further into this magma of information and reveal structures in mutation. Morse signal, amateur radio, satellite, storm, wandering star, undefined interference, it makes jumps in these bands and reveals a kind of "radio songs" as undecrypted languages. The antenna is a noisy instrument with undefined resonances, a sculptural element interacting with the invisible.

The entire device immerses us in an impalpable environment where visual and sonic frequencies jostle our sensory spatial reference.





