

# Dossier Pep Vidal

L21 Gallery. Opening Section. ARCO Madrid 2016.

**L21**

# 1. From nothing to void — Del hueco al vacío. Project Winner of Propuestas 2014 VEGAP (Plastic Art)

In Spanish, we use the word void to describe a space without anything, an empty space, but we also understand void as a space where all matter (air and other particles) has been removed. There is an infinite difference between a hole nothing and a space with absolutely nothing void or vacuum but at a mere glance we cannot distinguish between A void and THE void.

For the { } project, see corresponding section, an ultra-vacuum capsule was made by removing 99,9999999% of its matter. No one was able to see the capsule except for the artist and the people at the research center where it was made. The project, From nothing to void – Del hueco al vacío — aims to deepen the understanding of what lies between nothing and void; it visibly shows the difference between the two.

To do this, 5 capsules were constructed, like those shown in the image, each with a distinct degree of emptiness. They appear identical but are radically different.

- Capsule 1: Nothing has been done. Therefore, there is air and other particles inside. A hole. A void.
- Capsule 2: A partial vacuum has been created by removing 50% of the matter.
- Capsule 3: An intermediate vacuum has been created by removing 70% of the matter.
- Capsule 4: An even greater vacuum has been created by removing 90% of the matter.
- Capsule 5: An ultra-vacuum has been created by removing 99.9999999% of the matter, the maximum amount possible in a scientific facility. It is the closest thing to nothing. THE void.



Figura 1: Capsule of Ultra High Vacuum.



The capsules will be shown side by side in a row. Therefore, there will be 5 capsules, 5 spaces, 5 systems seemingly identical but in fact radically different ranging from nothing to a complete void.

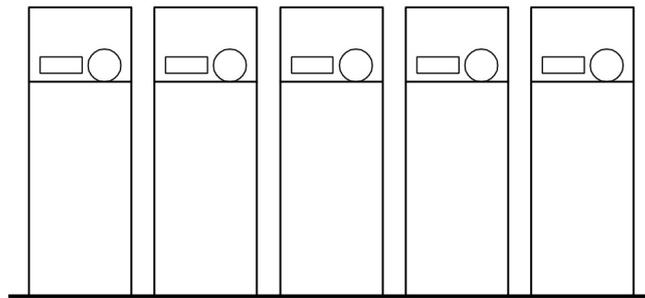


Figura 2: Sketch

### 1.1. Process.

All work was done in collaboration with the ALBA Synchrotron radiation facility, the largest scientific facility in Spain. The vacuum department at the Synchrotron provided guidance for purchasing the parts, including a list of all the materials needed to create a vacuum in each of the capsules and also provided support with the materials, including how to utilize the facilities in order to carry out the project. It should be taken into account that all the materials required to create a vacuum can be obtained at the Synchrotron—the best in Southern Europe—They are very specific in terms of tools, procedures, etc. Without their help this project would not have been possible.

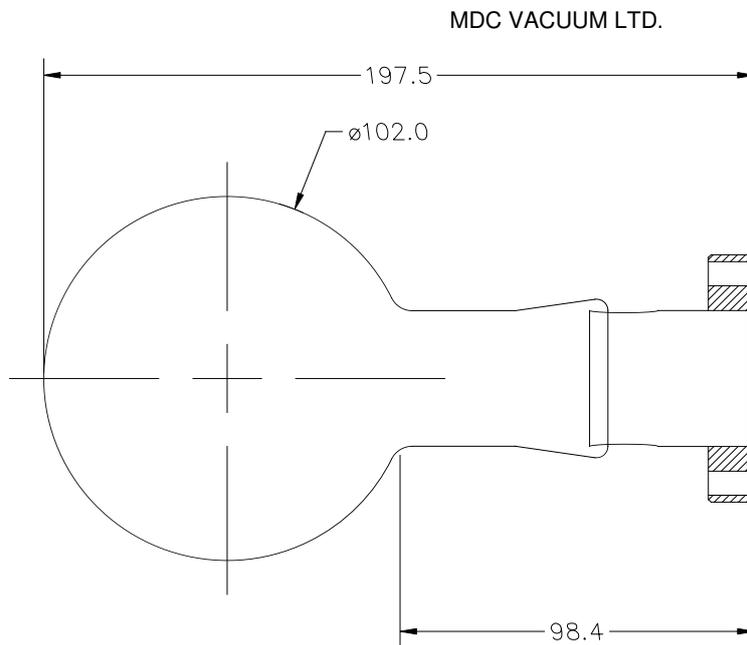


Figura 3: Esquema de la geometría de la cápsula.

### Kovar to 7740 Pyrex - UHV Series

Kovar to 7740 Pyrex - UHV Series

#### Features

- 7740 Pyrex® or optional type 7052 glass
- Type 304ss flange material
- Metal or O-ring seal geometries
- Kovar® or stainless steel sleeve
- Custom lengths available on request

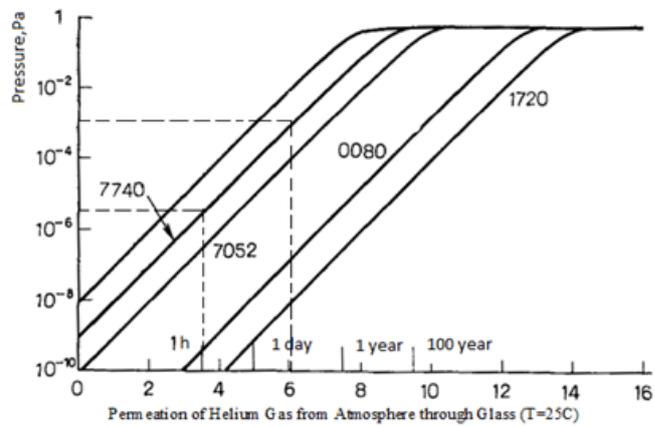


Figura 4: Esquema del comportamiento del vacío con el material utilizado para las cápsulas.

The ALBA Synchrotron also facilitated the use of their vacuum laboratory to create the voids in the capsules. It should be noted that the process to create the ultra-vacuum in Capsule 5 took two uninterrupted weeks and about a week for the rest of the capsules. The suction pump and other necessary equipment were also provided by ALBA Synchrotron and used in collaboration with the artist for the project. A certificate approved by the ALBA Synchrotron will be attached to each valve specifying the degree of emptiness reached.



Figura 5: Capsules during the pumping process. 2-weeks process.

A certificate from ALBA Synchrotron has been made with the specifications (level of Vacuum) of the capsules.



CONSORCI PER A LA CONSTRUCCIÓ, EQUIPAMENT I EXPLOTACIÓ DEL LABORATORI DE LLUM SINCROTRÓ  
 CONSORCIO PARA LA CONSTRUCCION, EQUIPAMIENTO Y EXPLOTACION DEL LABORATORIO DE LUZ SINCROTRON

CELLS-ALBA, Ctra. BP 1413 de Cerdanyola del Vallès, Barcelona (Spain) - Tel. (+34) - 93 592 43 00 - Fax (+34) - 93 592 43 01 - www.esrf.es

<b>VACUUM ACCEPTANCE TEST</b>	Ultimate Pressure [X]	Prepared by:	Raquel Monge
	Leak Testing [ ]	Checked by:	Raquel Monge
	Residual Gas Analysis [ ]	CODE:	Pep Vidal Art Project

<b>DRAWING CODE:</b>	NA	<b>DESCRIPTION:</b>	UHV Glass spheres with adapter flange
<b>PART IDENTIFIER:</b>	NA	<b>CHECKED PIECES:</b>	5
<b>PROJECT:</b>	External Project	<b>NON-CONFORM PIECES:</b>	0

<b>ULTIMATE PRESSURE TEST</b>	Date:	17/08/2015
	Operator:	Lluís Ginés

<b>Primary Vacuum</b>			
<b>Equipment:</b>	Roots Pump ADIXEN ACP15	<b>Pumping Capacity:</b>	15 m <sup>3</sup> /h
<b>ITEM NAME:</b>	CAPSULE 1	<b>Pumping Down Time [s]:</b>	-
		<b>Ultimate Pressure [mbar]:</b>	1013
<b>ITEM NAME:</b>	CAPSULE 2	<b>Pumping Down Time [s]:</b>	-
		<b>Ultimate Pressure [mbar]:</b>	240
<b>ITEM NAME:</b>	CAPSULE 3	<b>Pumping Down Time [s]:</b>	-
		<b>Ultimate Pressure [mbar]:</b>	10
<b>ITEM NAME:</b>	CAPSULE 4	<b>Pumping Down Time [s]:</b>	-
		<b>Ultimate Pressure [mbar]:</b>	5,6E-01
<b>ITEM NAME:</b>	CAPSULE 5	<b>Pumping Down Time [s]:</b>	-
		<b>Ultimate Pressure [mbar]:</b>	3,7E-02

<b>DISPOSITION</b>			
<input checked="" type="checkbox"/> <b>ACCEPTED</b>	<b>Quality Responsible:</b>	RAQUEL MONGE	
<input type="checkbox"/> <b>NON-CONFORMED</b>	<b>Quality Responsible:</b>		

<b>COMMENTS</b>

Figura 6: Certificate from ALBA Synchrotron has been made with the specifications (level of Vacuum) of the capsules.

## 1.2. Price

5 capsules of Ultra High Vacuum (from 1013 mbar to  $3,7 * 10^{-2}$  mbar), from the Winner Project Propuestas VEGAP 2014 (Plastic Arts).

Variable dimensions. Unique piece.

A certification from ALBA Synchrotron with the specifications has been attached.

18000 eur + IVA

## 2. Singularities

In mathematics, a singularity is in general a point at which a given mathematical object is not defined, or a point of an exceptional set where it fails to be well-behaved in some particular way, such as differentiability. Singularities are everywhere: in the Sky with the birds, clouds, winds, among others.

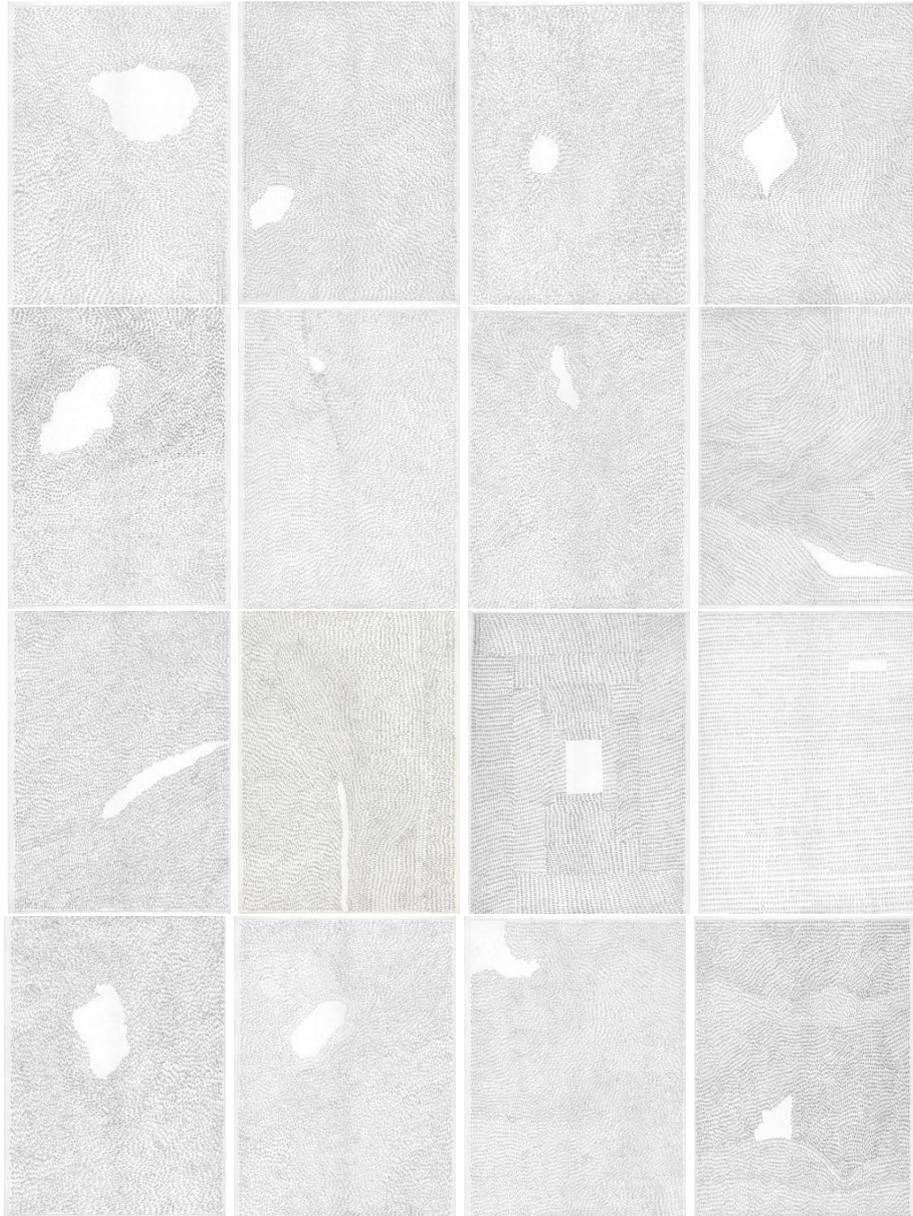


Figura 7: *Some singularities in the Sky*. Pencil on Paper. Polyptych of 16 DIN A4. 124 cm x 89 cm

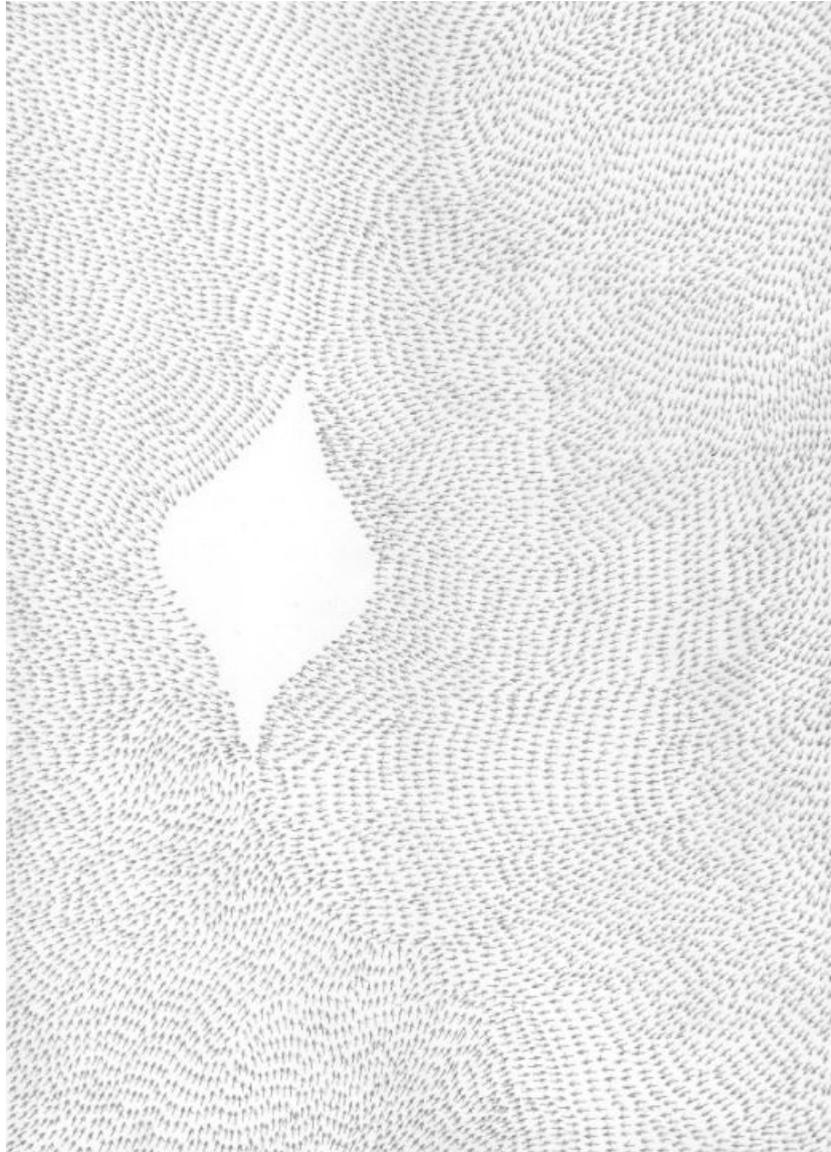


Figura 8: Singularity num. 4 from *Some singularities in the Sky*.

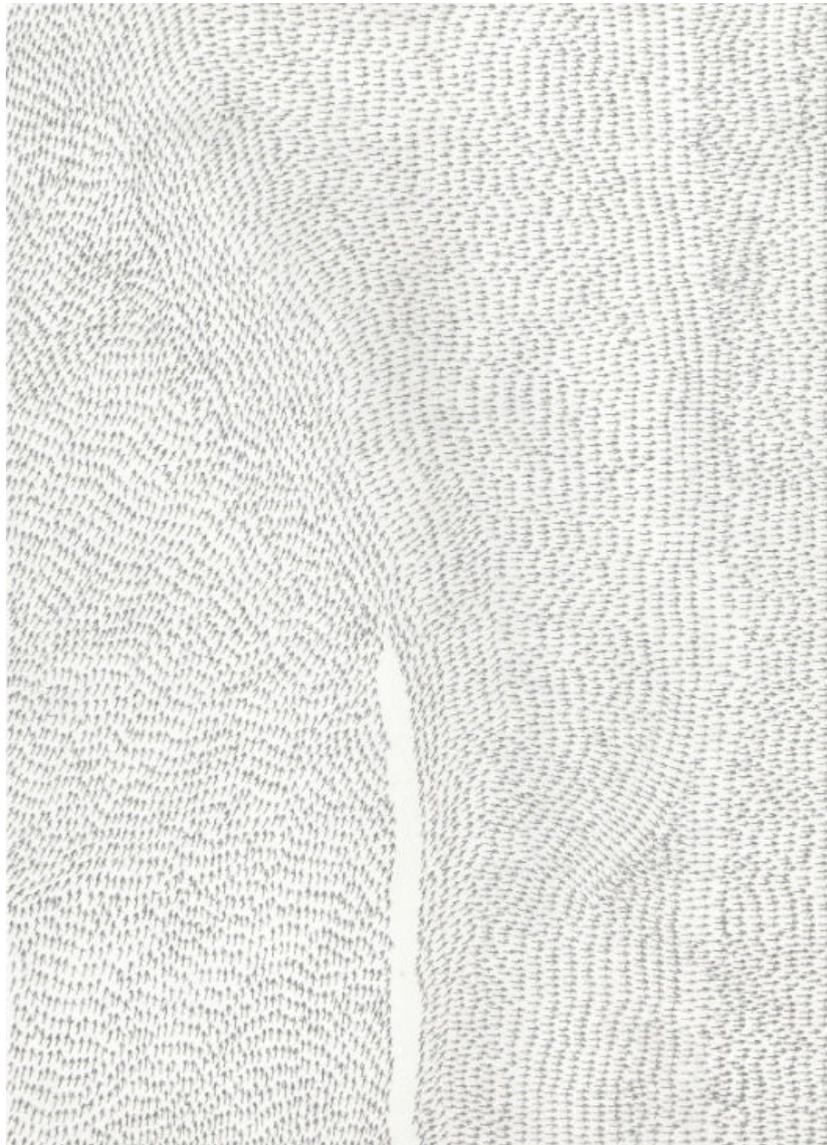


Figura 9: Singularity num. 10 from *Some singularities in the Sky*.

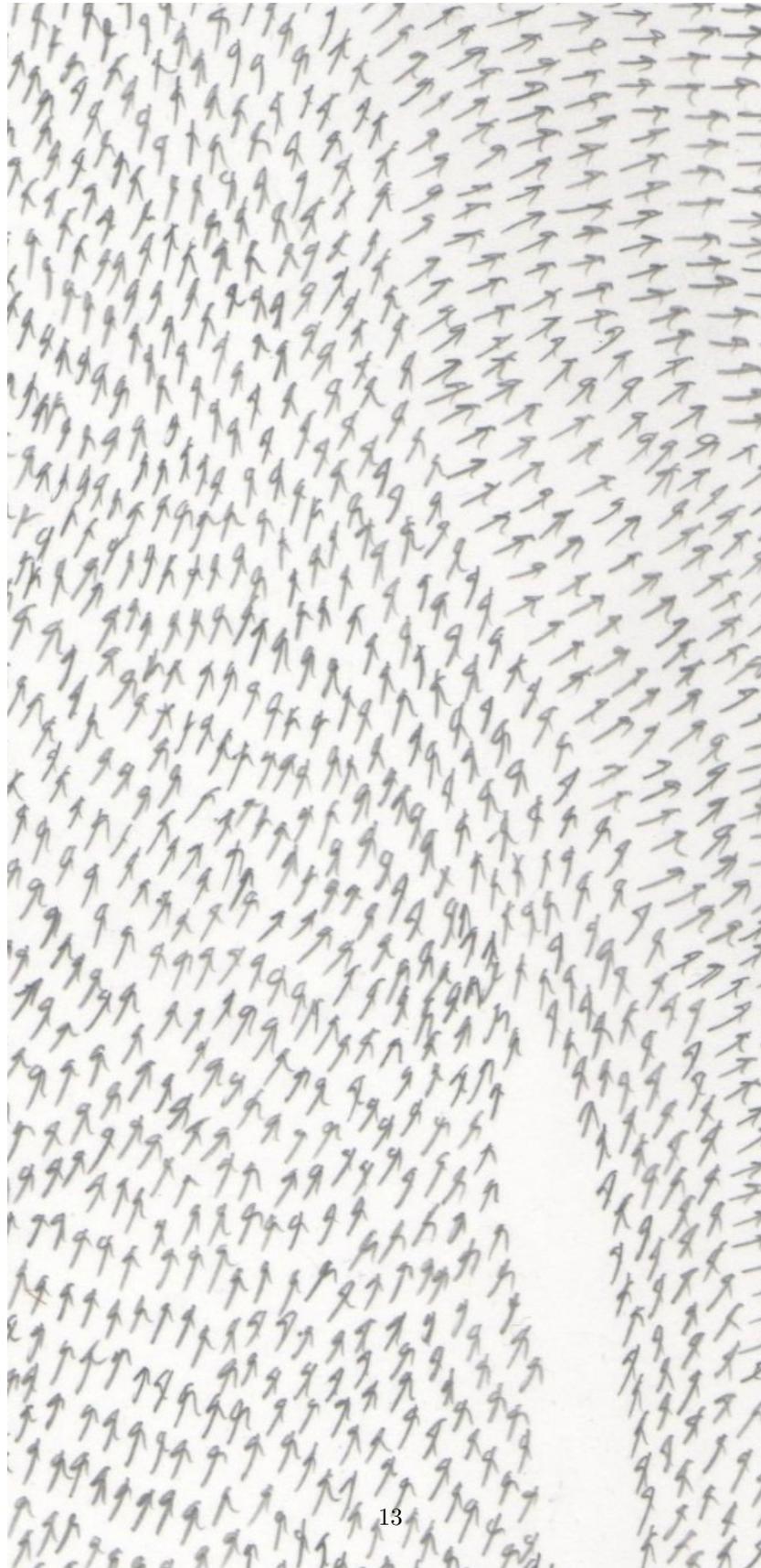


Figura 10: Singularity num. 10 (detail)

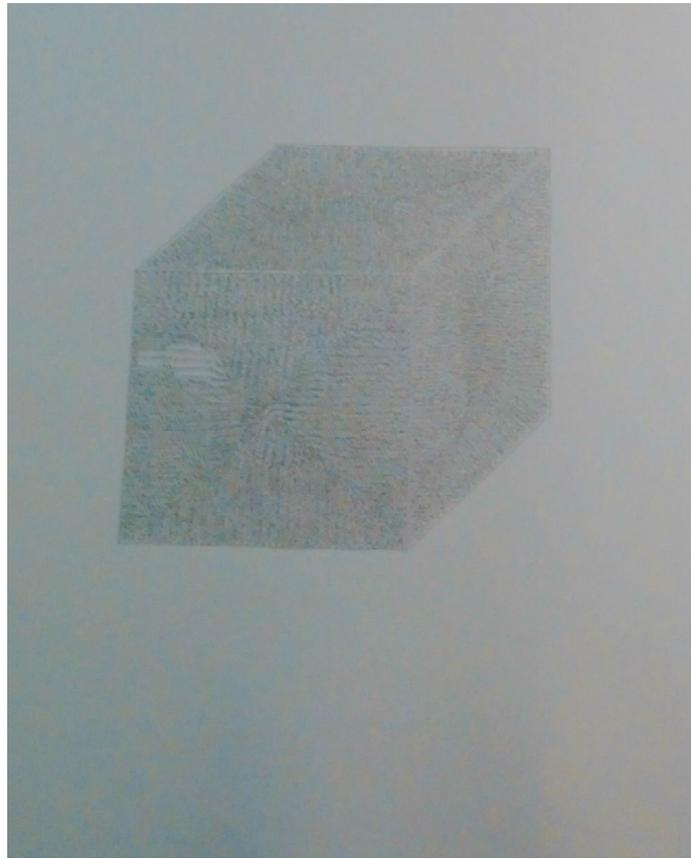


Figura 11: *Cubic singularity*. Pencil on Paper. 65 x 50 cm. 2015-16.

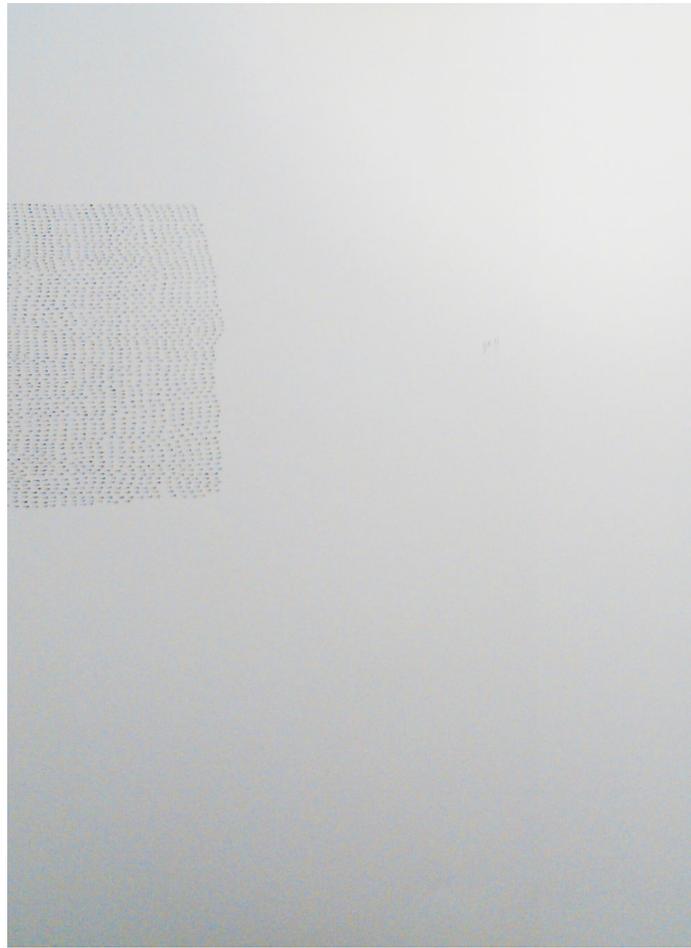


Figura 12: *A fraction of a second: go!*. Pencil on Paper. 65 x 50 cm. 2015-16.

## 2.1. Price

- *Some singularities in the Sky..* Pencil on Paper. Polyptych of 16 DIN A4.  
124 cm x 89 cm. 2015-16.  
3800 eur + IVA
- *Cubic singularity.* Pencil on Paper. 65 x 50 cm. 2015-16.  
1700 eur + IVA
- *A fraction of a second: go!.* Pencil on Paper. 65 x 50 cm. 2015-16.  
1700 eur + IVA



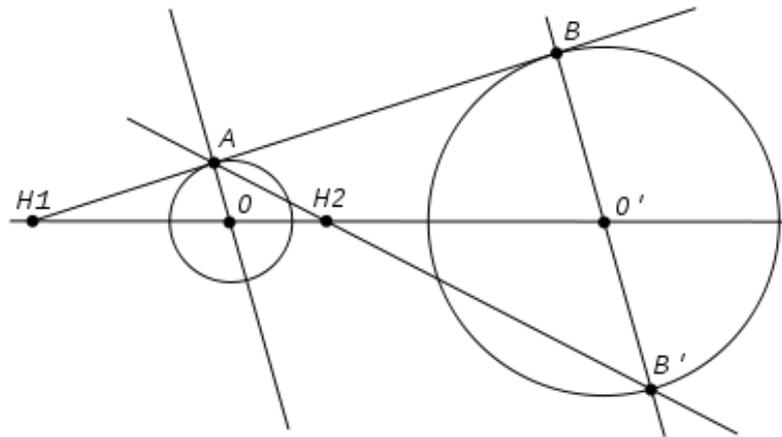


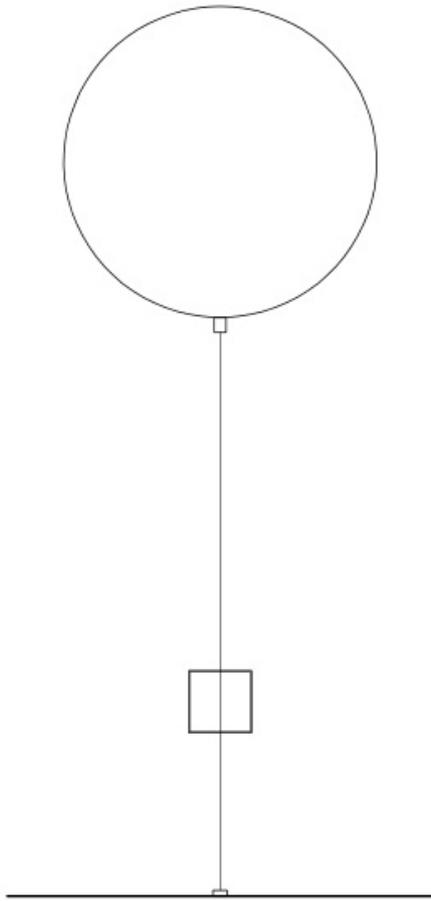
Figura 13: Laura and me in the studio with the 2.5 diameter sphere.



Figura 14: Holding an Australian pearl of 12.72 mm

To come full circle, two ultimate spheres are shown. Its possible that these two spheres can be extremes -of nature, precision, size, hardness- of the majority of spheres/marbles/circumferences/circles/globes/balls that we have seen/sensed/perceived.





### **3.1. Price**

Australian pearl 1272 mm framed and inflatable PPVD 2.5m  
+ travel/calculations/idea notebook

9000 eur + IVA

## 4. CV (and statement)

### 4.1. CV

Pep Vidal, Barcelona, 1980.

Degree in Mathematics at Universitat Autònoma of Barcelona (UAB) (2008). Special interest in infinitesimal calculus, topology and infinite series.

PhD in Physics in UAB and ALBA synchrotron (2014). Thesis research about mathematical algorithms for improving accuracy of instruments used in particle accelerators. I have two important conclusions from here: there are some extremely sensitive and complex systems; and I'm not interested in research that doesn't include my own experience and vital life in the process.

Advanced course in Contemporary Art in A\*Desk (2011-12), conducted by David Armengol. Resident artist at Hangar, Barcelona, 2013-15, FARE, Milano, 2013 and Casa de Velázquez, Madrid, 2014.

Solo shows at ADN Gallery (2015, Barcelona), Rolando Anselmi Gallery (2015, Berlin), Capella de Sant Roc (2015, Valls), Art-O-Rama (2014, Marsella), L21 Gallery (2014, Madrid), Salón (2013, Madrid), Espai Cub La Capella (2013, Barcelona).

Last group shows in L21 Gallery (Madrid, 2016), Antoni Tàpies Foundation (curated by Oriol Fontdevila, 2015), Caixaforum Barcelona (curated by Juan Canela, 2015), VII Bienal de Jafre (curated by Carolina Grau Rahola, 2015), Fabbrica del Vapore, EXPO 2015, Generaciones 2015, La Casa Encendida, Madrid and Lisboa, 2015, OTR (curated by Carolina Castro, 2015).

Collection: Anny De Decker private collection, Antwerpen; Francisco Cantos private collection, Madrid; Urbano private collection, Madrid; Montemadrid Foundation, Madrid; Arxiu del Centre d'Estudis i Documentació del MACBA, Barcelona; Centro de Documentación y Biblioteca del MNCARS, Madrid; Museum of Modern Art Library, New York.

More information: [pepvidal.com](http://pepvidal.com), L21 Gallery



Figura 15: Me and me in 20 years / My father and my father 20 years ago.

## 4.2. Statement

I work with infinitesimal changes -changes really small- that are constantly always everywhere. The chain of infinitesimal changes is infinite and chaotic.

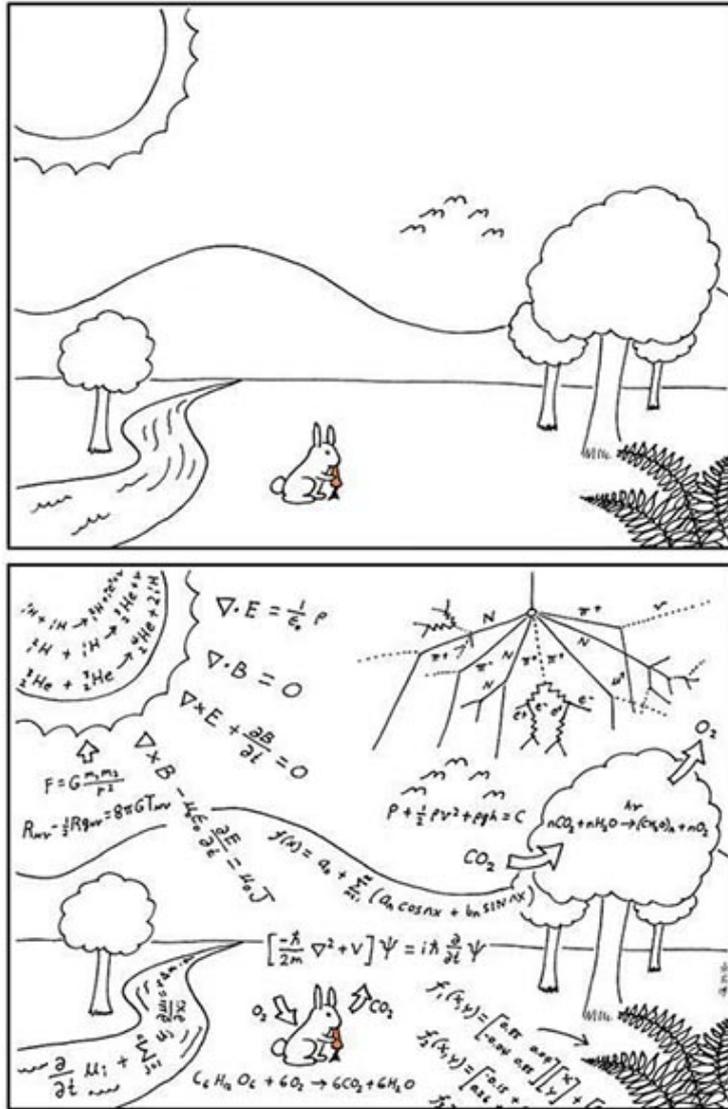


Figura 16: A few of infinitesimal changes in a system.

## 5. Recent work

### 5.1. Cabaña de madera, cabaña de plomo

Group show *Hablo, sabiendo que no se trata de eso*, curated by Juan Canela. Caixaforum Barcelona. 2015-16.

(Extract of the catalogue for the exhibition)

1983. Joseph Beuys built *Hinter dem Knochen wird gezählt SCHMERZRAUM*, a small room made out of lead sheets, iron, two silver rings and a lightbulb hanging from the ceiling. In this piece, Beuys explores several symbolic connections between natural phenomena and philosophical systems. As visitors enter this hermetic installation, they feel a sense of enclosure and confinement due to the use of lead, which absorbs the little light emitted by the lightbulb and also insulates and protects at the same time. The two rings are the size of a child's head and the other that of an adult are made out of silver, an excellent conductor, in contrast to the insulating lead. Materials, bodies, emotions. Here, communication or the lack thereof takes place through different channels, far removed from language but linked to the intrinsic properties of the materials themselves and their capacity for agency. The effect on bodies entering this space is a sense of insulation and protection. 2014. Artist and physics graduate Pep Vidal built a modest wooden hut similar in size to Beuys's room on a plot of wasteland in Barcelona. His idea was to move out of his flat and go and live in the hut to finish his physics dissertation, which he presented in the scientific-academic world and in an artistic context. *Cabaña de madera, cabaña de plomo A* is an action that involves reading this dissertation inside Beuys's room. Whereas the wooden hut was the space for the writing process, the lead room is the space that brings this process to an end, the space for reading the dissertation. Pep undertakes to remain in the space for as long as it takes him to read the dissertation through from start to finish. The relationship with the lead and the characteristics of this space of pain (insulation and protection) draw certain parallels with the wooden hut. Moreover, the project raises the issue of scientific language, which is utterly inaccessible to most people, and questions what it means to write a dissertation on a highly specific subject that only three people in the world are likely to be able to discuss. It also creates a space that brings the agencies of this almost indecipherable discourse as uttered by Pep's body and voice into direct contact with the materiality of the space of pain. A video recording of the complete reading in Beuys's room is set up in the exhibition space and a live session open to the public is held in the space of pain itself.

Juan Canela



Figura 17: Pep Vidal last day of residency in the cabin, June 2014.

## 5.2. Nail to nail to nail. The archive as a perfect standard.

Group show *How to do things with documents*, comisariada por Oriol Fontdevila. Fundació Antoni Tàpies. Barcelona. 2015.

Agreement for a Residency at the Archive of the Fundació Antoni Tàpies (AFAT)

The department of the Archive of the Fundació Antoni Tàpies (AFAT), represented solely by Núria Solé Bardalet, exceptionally and in order to host the artistic project by Pep Vidal González, IDN 6826244S, resident at carrer Monturiol, 27, 9è 1a, Rubí, authorises the artist to conduct a residency at the headquarters of the Archive, from 20 July to 2 August 2015, from 8 am to 7 pm Monday to Sunday.

During this period, the artist will be at the Archive as a user and, as such, will be subject to the regulations of the AFAT, attached in this document. For most of the time, the artist will be on his own and will therefore be responsible for the installations and subject to the regulations of the AFAT.

More information, here

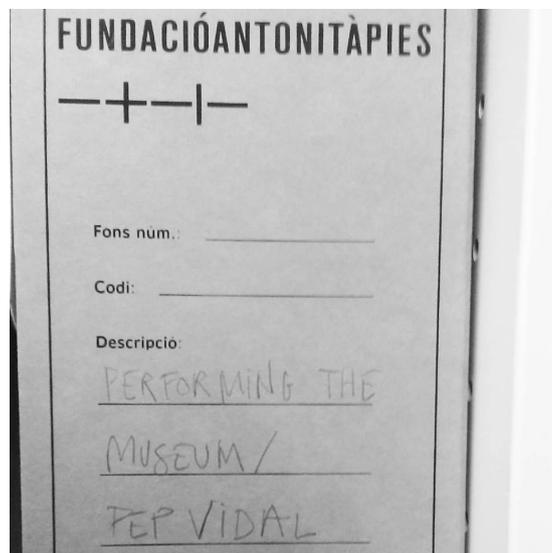


Figura 18: Archive of Pep Vidal inside the Archive of Antoni Tàpies Foundation.

### 5.3. Trees, treelines and global patterns

Solo show at ADN Gallery, Barcelona. 2015.

[Extract of the press release]

There are things that seem to be by chance or out of control, when actually they are not ; and vice versa . Pep Vidal Pep Vidal, a mathematician who recently received a doctorate in physics, focuses his research on the infinitesimal changes that can happen at any time and in any place . In other words, on changes that are imperceptible to the human eye and, precisely because of this, enormously surprising . Another branch of his research focusses on the false randomness of certain natural phenomena that are erroneously perceived as chance occurrences because of a lack of information . What is the rule that defines the randomness? Surely it is too complex for us to decode because of our limitations, so we will therefore continue to perceive these phenomena as something that happens by chance .

[More information here](#)



Figura 19: Part of 19-meters long Tree cutted in 7 exact equal volumes.

## 5.4. As a Whole

Solo show at Rolando Anselmi Gallery, Berlin. 2015.

(Extract from Mousse)

For his show *As a Whole*, Vidal will present a site-specific installation in the first room, transforming the white wall gallery space in a coordinate system. From a distance it appears as an obsessive repetition of points, with a blurry effect, but after a closer look, one realizes that these points are actually a regular succession of yellow smiley faces, covering the four sides of the room. Thousands of eyes pointed toward the center, staring at the visitor. Starting point for Vidal is the often-imperceptible impact that all gestures have on their surroundings and the consideration that each space with any kind of interaction is a system that can be modified, or destroyed, in order to create new systems. Systems are constantly modifying due to infinitesimal changes. In this occasion Vidal builds a coordinate system where spectators, as dynamic elements, are the main focus, together with other static elements, which are working with the accuracy and limits of control of the system. The viewer, moving around the space, is in a way continuously repositioning itself in relation to the system created by the artist. The repetitive, controlled, measured nature of the coordinates confronts with the lightness and friendly appearance of the yellow smileys, as a reminder of the numerous dichotomies that characterize our reality.

[More information here](#)

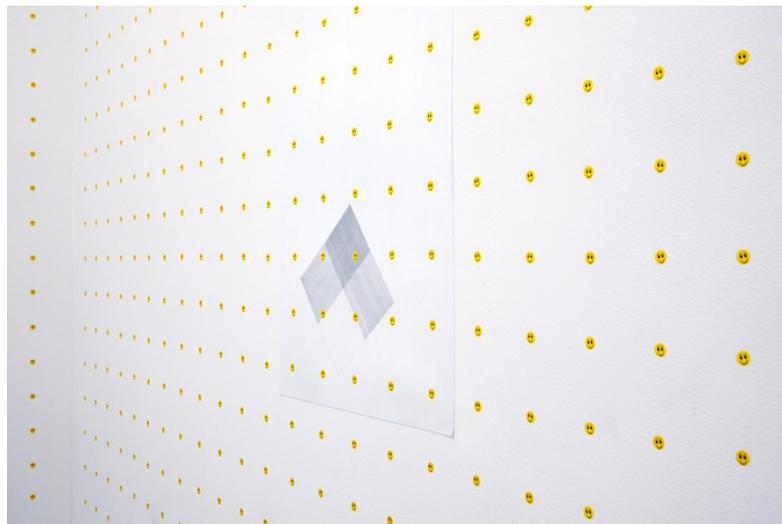


Figura 20: Detail of the installation of almost 20.000 smiley stickers for making a  $\{x,y,z\}$  coordinate system.

## 5.5. $f(t) = t(t-t_0)$

Exposición individual dentro del ciclo *Dèria*, comisariada por Marina Vives. Capella de Sant Roc. Valls. 2015.

[Extract of the press release]

$f(t) = f(t - t_0)$  is a function that indicates repeatability, a shift, a jump or a suspension in relation to the impact of time variability on any system. For example, a book that we put on a shelf and suddenly one day we find laid down: from the moment we left it until the moment it fell, it has been sustained over time, only influenced by a number of infinitesimal changes imperceptible at first sight. These changes, however, will at some point, make the book definitively lean and fall down.

In another order of progression, if we plant two ficus tree on the same day, we might think that, in equal conditions, their growth will be similar. But what happens if, having its space intervened; one of the two trees is a miniaturized? The Bonsai occupying the central space of the Chapel has been planted in the same amount of land that the roots of an 8 years old ficus tree (the same as the bonsai in the room) would need. You perceive this way a physical expansion of time, a juxtaposition between what this tree actually is and what should be, if it hadnt been meticulously cut and controlled.

[More information here](#)



Figura 21: General view of  $f(t) = f(t - t_0)$

## 5.6. Following the (Magnetic) North Pole

*Following the (Magnetic) North Pole*

Generaciones 2015. La Casa Encendida, Madrid. 2015.

The project Following the (Magnetic) North Pole is still on going. It starts when I've been realized by chance that the North that a compass is pointing, it is actually constantly changing. 1400 km in the last 2 centuries. So something apparently static is constantly changing (!!).

From this new (for me) idea of North, the research project is structured in some steps, ending with an expedition to the position of the Magnetic North Pole (very very North of Canada) and following during some days (as much as I can) the random" trace of the Magnetic North Pole.



## 5.7. Limits of Control

Solo show at L21 Gallery, Madrid. 2014. [Extract of the press release]

L21 Madrid announces with great excitement The Limits of Control, a solo exhibition by Pep Vidal. In the center of the room we find the Artist's proof, the first non-definite copy which is now encapsulated inside a methacrylic box pertaining to Pep Vidal's doctoral thesis in physics.

[More information here](#)



Figura 22: *Artist proof* and *Me acuerdo*, behind.

## 5.8. Building a cabin for finishing my thesis

*Building a cabin for finishing my thesis*

2014. Wood. 2.3 x 2.3 x 2.3 m

Can Felipa Visuals Arts, Barcelona, 2014.

I wanted finishing my PhD in Physics. Its for this reason I've built a 2.3m length wood cube-cabin. A space for being alone, living and writing the thesis during a few months for, finally, finishing my PhD. A (quite) small and (quite) isolated place where living and working. It is located in a empty site, near my studio in Hangar, Poblenou, Barcelona.

I was living here half a year. From April to the day after finishing my thesis in September 2014.



Figura 23: A white horse suddenly appears during a sunny day. Behind my cabin.

### 5.9. Numerical algorithms for improving the measurement of topography of x-ray mirrors used in synchrotrons

*Numerical algorithms for improving the measurement of topography of x-ray mirrors used in synchrotrons*

Publication. Winner of Miquel Casablanca Prize (Publication) 2014.

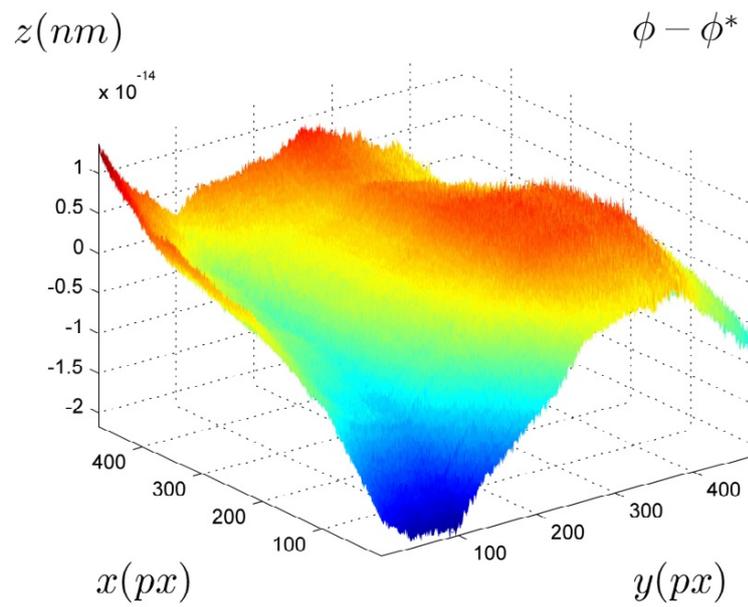


Figura 24: Figure of the thesis.

## 5.10. Beyond

### *Beyond*

2014. Salt water, brine shrimps, potatoes, stone, foam, among other materials.

Site specific para el espacio THE WINDOW. L21 Gallery. Madrid, 2014.

*Beyond* is an installation which consists in a partially isolated system. From the street the viewer observes, at first sight, a window blocked with a black paint and, then, as you get closer, a small light emerges from a not very big hole. When looking inside, one discovers a marine microcosm, an unknown and partially hidden place of natural and artificial elements.

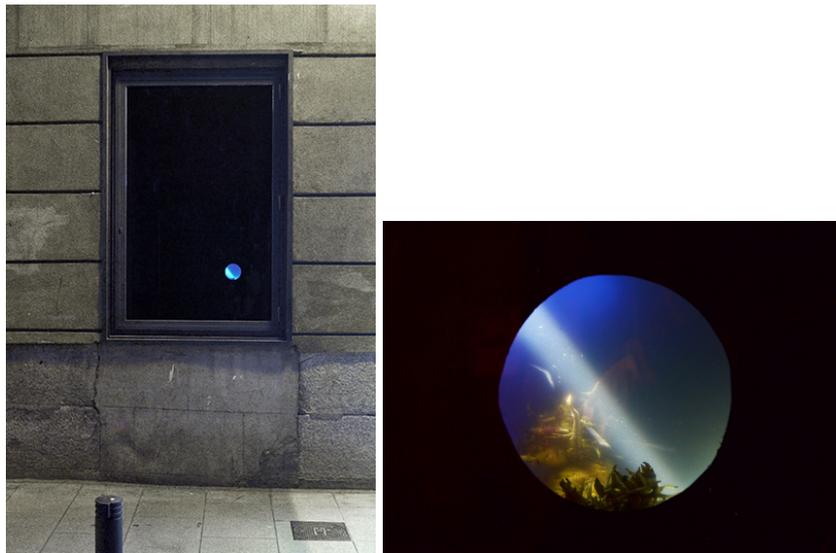


Figura 25: General view of *Beyond*.

### 5.11. A humble sock

2014. Resin. 0.021 mm x 0.019 mm x 0.023 mm.

Antoni Tàpies Foundation.

.<sup>A</sup> humble sock through which meditation is proposed, with it I represent the importance of the cosmic order that exists among small things”, Antoni Tàpies.

It is because of this importance that a miniature replica is made of the emblematic sock of Tàpies, the smallest, and placed next to the original, to be lost forever. The size of the sock has been changed, from 18 meters in 1991 to 2,85 meters the sock in the Foundation, in 2010. Following this evolution the sock became extinct in May 2013.

The micro-sock, the smallest in the world, is the size corresponding to 2 hours before become extinct. Made with in collaboration with National Center of Microelectronics.



Figura 26: Micro-sock of Antoni Tàpies.

## 5.12. A piece of Land

*A piece of Land*

50 square meters of a spelt field in Milano. Solo project. Milan, 2013-2015.

*A piece of Land* consists on taking the central portion of a recently seeded spelt field and leave it without doing something -no cut, no extra water, nothing- from December 2013 to end of 2015, and see what's happening.



Figura 27: A piece of Land 1, 2, 3.

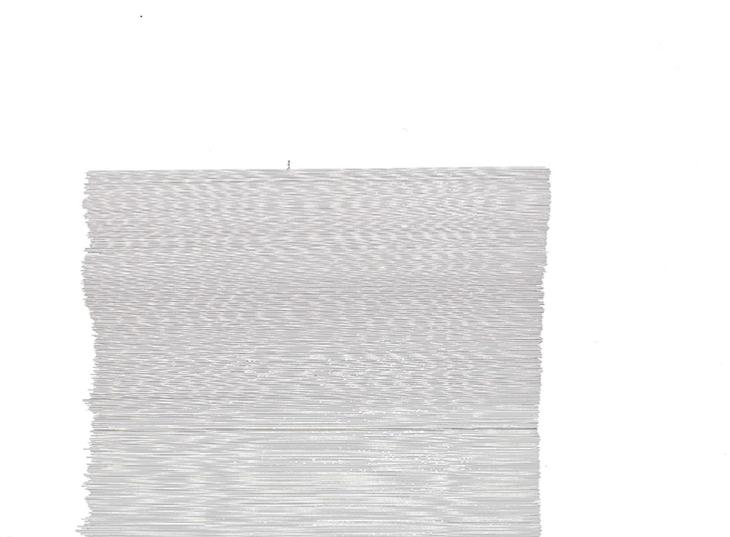


Figura 28: A man in front his piece of Land.

### 5.13. {}

{ }

2013. Void, plastics (7), metals (4) and other materials (8). Size: 83cm x 83cm x 83cm. Weight:  $\approx$  1 ton.

Espai Cub, La Capella. Barcelona.

{ } is a singularity in the space.

Firstly I've done a small ultra high vacuum chamber, removing the 99.9999999% of molecules of air. After, I've covered this space with several isolating materials, for finally having the void forever.

A real and constant void resistant to infinitesimal changes.



Figura 29: { }.

## 5.14. Grass grows

Soil, wood and grass. Variable dimensions.

Espai Muxart, Martorell, 2012. Finalist of Miquel Casablanças Prize 2013.  
Fabra i Coats 2013.

*Grass grows* of Hans Haacke and *Grass grows* of Pep Vidal are simultaneously showed in Haus der Kunst (Munich) and Espai Muxart (Martorell), respectively. *Grass grows* of Hans Haacke is a cone of grass and it is realized by cultivating seeds in a cone of soil. *Grass grows* of Pep Vidal is an exactly copy of the Haacke's piece, during all the show, and it is realized with high accuracy techniques and procedures. For proposing something useless and impossible as copying randomness and simplicity of grass growing.



Figura 30: Front view in Fabra i Coats.