



Please consider the environment before printing this.

Synopsis

Interactivity is an interference.

We cannot observe without altering what we observe in such a way that what we perceive around us is not the surrounding environment but rather our interaction with it instead.

OutComes occupies a space in order to, along with the use the public make of it, give it a new content, makes us understand the extent of our actions in the space, the spreading of our presence in a system that is looking for a new equilibrium, adapting itself to us as we adapt ourselves to it.

From the relationship the installation itself has with the space it occupies (which moulds and defines its structure) and the relationship of the public with the same space (their way of moving in it and thereby in the installation) a musical composition is created; both the public and the installation form an active part in the creation of this new element in spite of the fact that neither one intervenes directly in the other, but rather cohabit the space in which each one finds the other instead.

Two points are key for favouring this: with all the technology remaining hidden, a fully plastic final result is created as opposed to the digital process on which it is based; on the other hand, by freeing the public from the interface, they focus on their feelings, the materials and shapes of the installation as well as the sound of these elements, the sound produced by making them vibrate. In this fashion, in this space, a series of behaviours occurs in the work itself which are only possible to the relationships the public establishes, and offering to that public a more intense perception of the reality surrounding it.

OutComes is made up of a modular installation, composed of a variable number of resonator tube distributed in the space and a graphic of flows on the floor which visualizes the systems of relationships for that composition.

Standing upright on the floor and apparently isolated in their positions, but making up one great element, when we move deeper into its space, the sound begins to flow from them.

Light, pleasant sounds which are synchronized and vary in number and kind as in a data flow, with synchronized rhythm appearing with ourselves, through our presence and position in the space, being the reason for these variations... in a continual adaptation.

OutComes undoubtedly studies information flows in the emerging system, but it goes beyond a visual representation of a virtual system and offers an immersive perception of a plastic result, which makes a great impact on our senses.



Picture. Detail of the work in the 'Interactivos? 09' exhibit in Arteleku (San Sebastian).

Technical Sheet

Title

Outcomes.

Year

2009/10.

Use

The installation uses a single connector to the main current, which activates and deactivates it. It is totally independent and does not need maintenance.

Operation

Each node of the installation is capable of perceiving the presence of whoever approaches it, as well as knowing the reaction the nodes in its immediate vicinity are having, utilizing this data for producing sound. This makes each tube, although independent of the others and individually guided by the same action/reaction rules, contribute to an emerging behavior by adding its action to the others.

Each tube is capable of producing analogue sounds by percussion, and as a whole, the sound created by the tubes (different frequencies) behave as a volume which envelops, evades, attracts and repels us, interacting with us.

Construction

Moulded concrete pieces, tubes of iron, aluminium, copper and steel, medium density fibreboard, woodwork, own circuitry and 12V solenoids.

Hardware for each node

Arduino I/O board replica, theremin sensor, transistor panel, 110/220v-50/60Hz 12v DC power source and 12V solenoids.

Image

Make visible the relationships between the nodes and their behavior within the network through a graphic which visually represents the rules which govern the system (vinyl).

Sound

Percussion composition by emerging process in real time.

Interface

Detection of presence and distance of public through changes in the magnetic field.

Programming

Arduino IDE.

Technical Sheet

Exhibition Requirements

- Space for installation variable depending on number of nodes to use.
- Overhead directional light for illuminating the nodes.
- 110/220v 50/60 Hz electrical connection.

Assembly

- Design the layout of the installation appropriate to the space.
- Distribute the bases and racks in the space to position the installation.
- Mount the strikers.
- Position the bases of the electronics and connect the wiring.
- Position the concrete pieces. Put the antennas in place.
- Position the vinyl on the floor (depending on the type of graphic to use, this may be put in place at the beginning).

Transport

- One 205 x 23 x 12cm and 20Kg case for each two tubes (with strikers).
- One 23 x 23 x 45cm and 35Kg case for each two bases (with electronics).

Technical Sheet

¹ Iron tube

Detection antenna

² Concrete cone

Ballast for tube

³ Upper hole

Positioning of tube with carillon inside

⁴ Lower hole

Circuitry area

⁵ Detection area

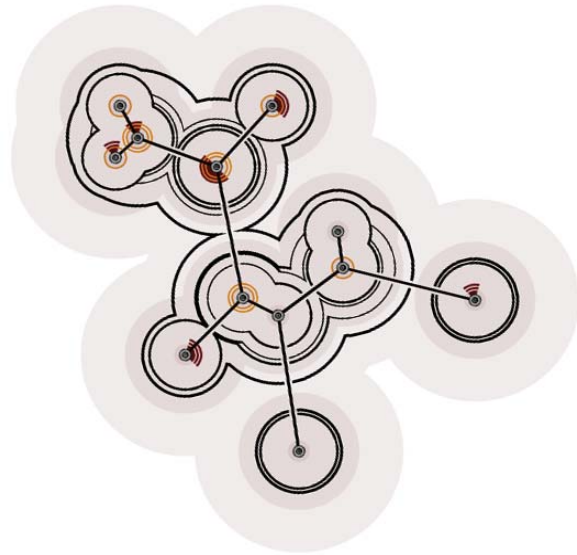
360° with a 200cm radius



Diagram. Elements making up each node.

Mounting

Through an application which allows us to simulate the mounting of the installation and an emerging algorithm while simulates the changing positions of the public in the hall, it is possible to understand the behaviour of the system and listen to the sounds the real installation would produce, and be able to define the best composition for a specific space.



OUTCOMES

SCALE: 42 DRAWING: CARTEC_ZOOM

RESOLUTION: 11 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100

MODES: 14 P. ROTATION: 0 D. ROTATION: 351

	MIN	MAX	D	ANGLE	HIT	PLAY		BASE	R.F	D.F
LINK 1	50	180	3	30	20	x1	INTERNAL R.			
LINK 2	180	250	2	45	10	x1	EXTERNAL R.			
LINK 3	300	350	1	90	10	x1	WIRE	7		3

GRAPHICS: #_1 L_2746_35 L_4316_35 #_2 L_2746_35 L_2046_525 #_3 L_2046_35 L_2010_525 L_730_525 #_4 L_2010_525 L_830_35 L_2000_175 #_5 L_830_525 L_450_175 #_6 L_2000_525 #_7 L_730_525 L_1680_175 L_470_175

COVERS: #_1 #L2L2C29 #L4L2C93 #_2 #L2L2C29 #L3L2C204 #_3 #L2L2C204 #L4L2C217 #_4 #L2L2C217 #L3L2C204 #L2L2C200 #_5 #L4L2C217 #L4L2C45 #_6 #L4L2C200 #_7 #L3L2C173 #L2L2C168 #L4L2C47

WIRE + SOUND: SHORT W: 8 *140 MEDIA W: 6 *270 ALLUMINIUM C: 4 STEEL C: 6 COPPER C: 4

BPM: 40 x40 x40 (STOP) SAVE LOAD DISCONNECT IP: 192.0.0.1 FILE: CARTEC_DEFINITIVO

OutComes
 a project by Daniel Palacios
<http://danielpalacios.info>

Audio-Interaction
 Prototyping Graphical Interface
 Design&Development
 Emanuele Mazza aka n3m3da
<http://www.d3cod3.org>

On/Off [] TYPE1: 90 2666 TYPE2: 90 2666 TYPE3: 90 2666 BPM: [] SEQTIME: [] 16 STEPS METRONOME [] VOLUME: []

MASTER PHASE 1 MASTER PHASE 2 MASTER PHASE 3 SOLO

SLAVE BY 1 SLAVE BY 2 SLAVE BY 3

SLAVE BY 1 SLAVE BY 2 SLAVE BY 3

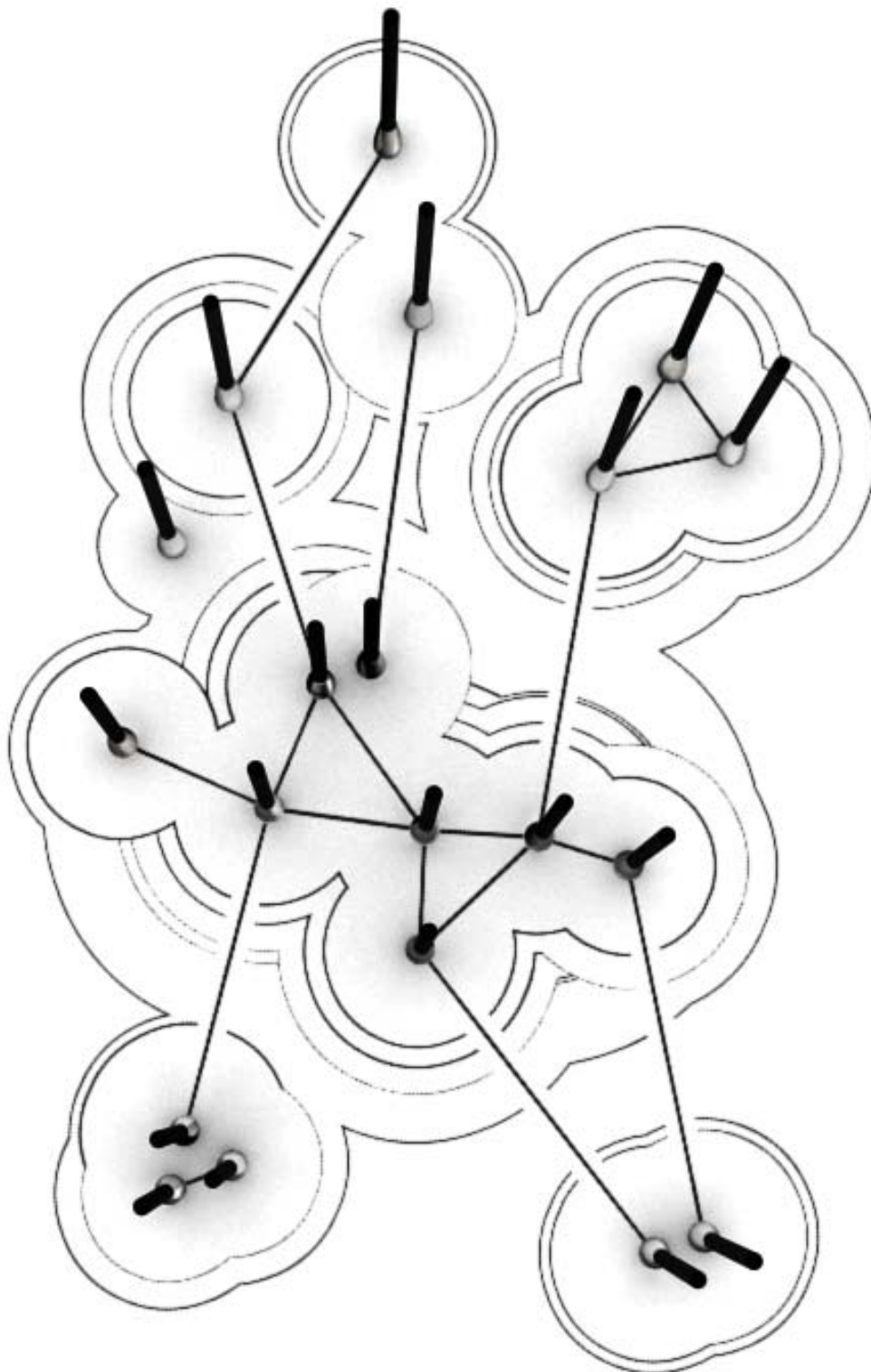
OSC INPUT [] ARDUINO METRONOME [] 166 MS [] 166 MS [] 166 MS [] read XML [] write new XML [] CLEAR Console []

GENERATE ARDUINO CODE []

CONSOLE
 OUTCOMES: 21/10/2010
 receivingOSCData#PORT2000
 audio file list READY loading XML
 XML LOADED

Top. Representation of the graphic, areas of influence and sound patterns for a composition.
 Centre. Control panel for creating the graphic.
 Bottom. Control panel for creating the audio.

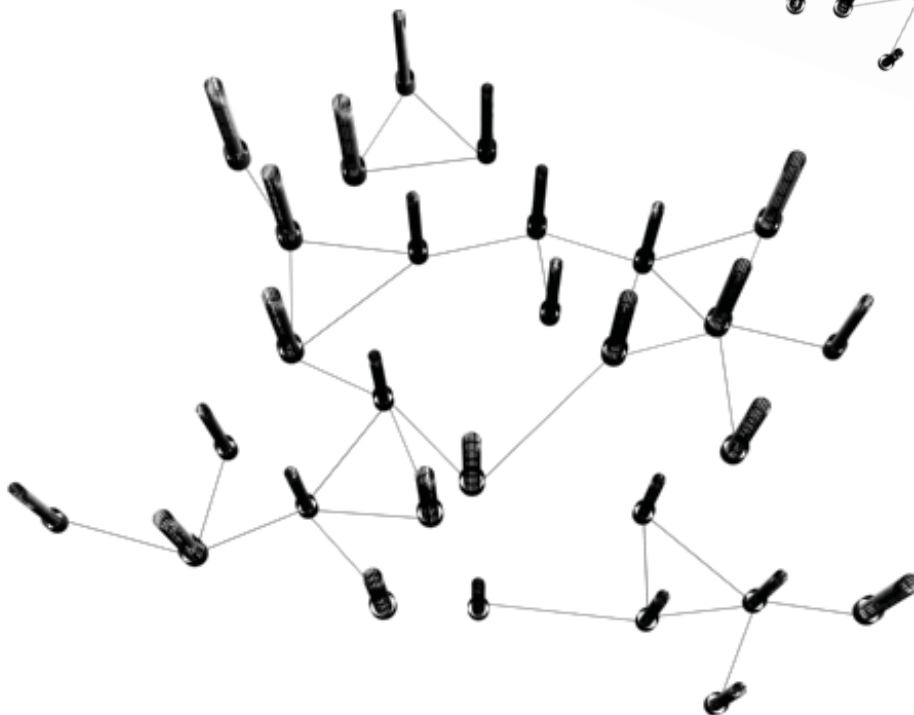
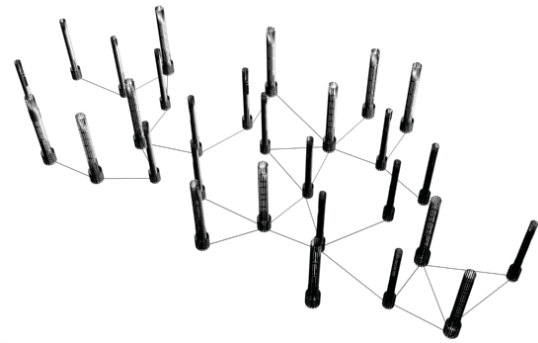
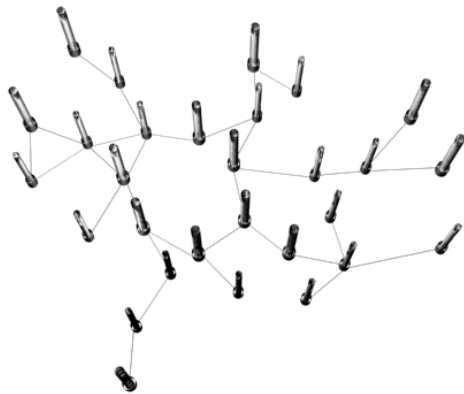
Mounting diagrams



Simulation. Re-creation of a network structure, showing the nodes, the interconnections between them and a graphic of the flows.

Mounting diagrams

This system and its behaviour will logically be affected not only by outside elements but also by its own communications structure, so that facing the same stimulus, the result would be different if dealing with a centralised or linear system and even with isolated elements, as can be seen in the graphics.



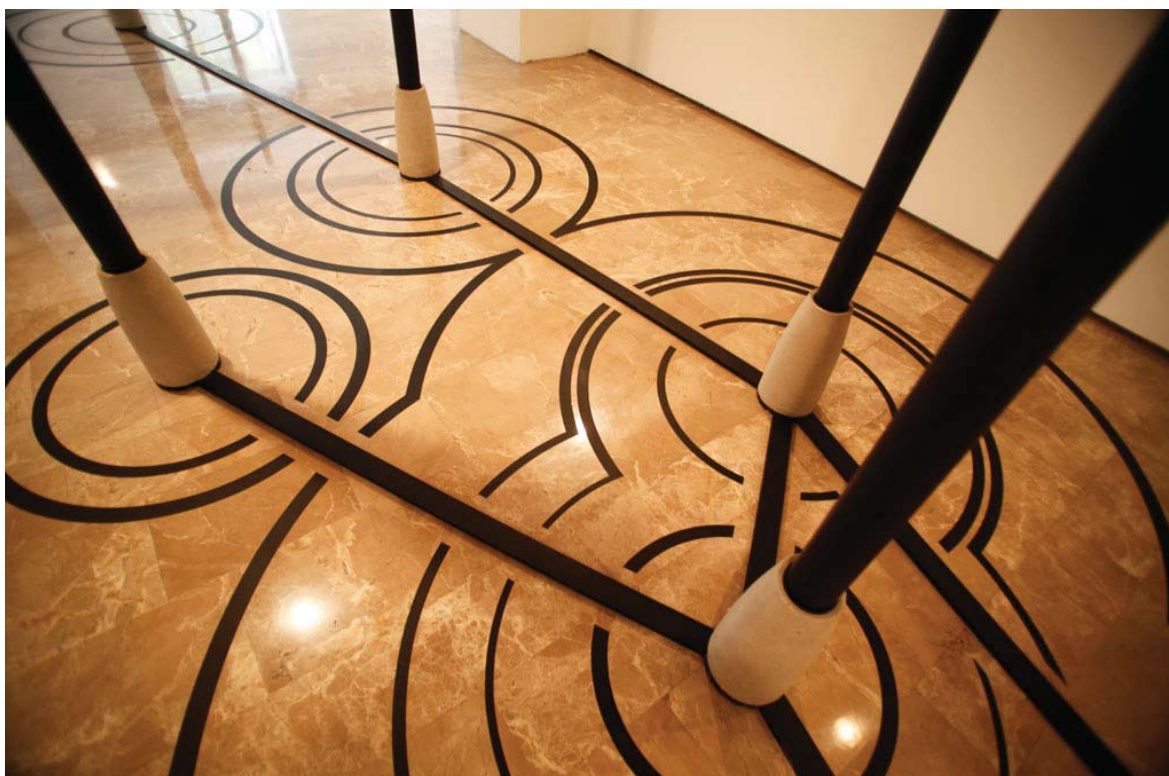
Pictures



Picture. Nit del art, Casal Solleric (Palma de Mallorca, Spain)

More info. Photo sets available online www.danielpalacios.info

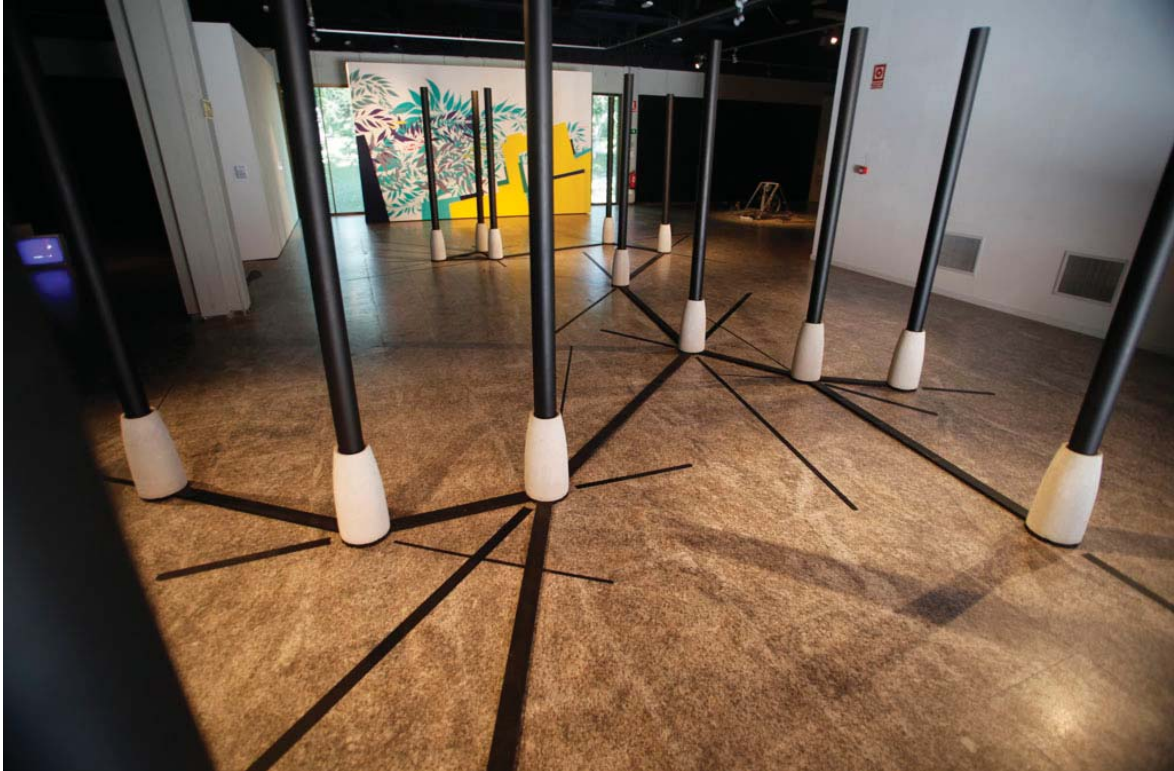
Pictures



Pictures. Nit del art, Casal Solleric (Palma de Mallorca, Spain)

More info. Photo sets available online www.danielpalacios.info

Pictures



Pictures. Encuentros Digitales, CarteC (Madrid, Spain)

More info. Photo sets available online www.danielpalacios.info

Thanks to:

David Alarcón
Amparo Carbonell
David Cuartielles
Ignacio Despujol
Ainara Eigoibar
Nohemi Gonzalez
Montserrat Jiménez
Moises Mañas
Mariajo Martínez
Emanuele Mazza
Ángela Ramos
David Sjunnesson
Andrei Smirnov
Marcos Yarza
...and to the ¿Interactivos? 09 Arteleku team



Gipuzkoako Foru Aldundia
Diputación Foral de Gipuzkoa

With the participation of:

Emanuele Mazza.

With the collaboration of:



Partially financed by the Assistance and Cultural Fund of VEGAP

Produced by:



stopantplay
www.stopantplay.com