LAb[au] **Manuel Abendroth**

Jérôme Decock

Els Vermang

www.lab-au.com

meta.lab-au.com

Exhibitions (selection)

[2021] // 'X' : group exhibition at **FRAC** des Pays de la Loire, Carquefou [fr]. 20.11.20 > 30.06.21

[2020] // 'Ce mouvement qui deplace les lignes' : trio exhibition with Roger Vilder and Pol Bury at **Patinoire Royale**, Brussels [be]. 26.05 > 29.08

[2019] // 'If Then Else': solo-exhibition at **Casino Luxembou-rg**, Luxembourg City [lux]. 27.09.19 > 05.01.20

[2018] // 'mosaique 5x15 bw' : in group exhibition 'Action <> Reaction' at **Kunsthal**, Rotterdam [nl]. 22.09.18 > 20.01.19

[2018] // 'What Hath God Wrought?' : in group exhibition at **MAAT**, Lisbon [pt]. 22.10 > 28.10.18

[2016] // 'What Hath God Wrought?': in group exhibition at **Museum M**, Leuven [be]. 19.10.15 > 17.01.17

[2016] // 'S/N' : in group exhibition 'Terminal P' at **La Panacee**, Marseille [fr]. 17.06 > 18.08

[2015] // 'mosaique 4x4x4 rgb' : in group exhibition at **ACC**, Gwanaiu [kr]. 25.11 > 30.06.16

[2014] // 'S/N' : in group exhibition 'Physicality' at Musee d'Art Contemporain, Montreal [can]. 23.05 > 01.06.14

[2014] // 'zero un' : solo-exhibition at **galerie denise rene**, Paris [fr]. 06.02 > 22.03.14

[2014] // 'S/N' : in group exhibition 'Artist Novelist' at MOMA, New York [usa]. 08.01 > 31.03.14

[2013] // 'PixFlow #2' : in group exhibition 'noise' at **Biennale di Venezia**, Venice [it]. 30.05 > 20.09.13

[2012] // 'Particle Springs' : in group exhibition at **Seoul Museum of Art**, Seoul [kr]. 04 > 23.12.12

[2010] // 'Chrono.prints' + 'f555 prototype + notations' + 'Binary Waves notations' : in group exhibition at **Ludwig Forum**, Aachen [de]. 12.09 > 14.11

[2010] // 'Binary Waves' + 'f552' : in group exhibtion at **Singapore Art Museum**, Singapore [sgp]. 16.09 > 26.09.

[2010] // 'm0t1v' : solo-exhibition at **Kunst-Station Sankt Peter**, Köln [de]. 08.01 - 12.02

[2009] // 'Young Belgian Painters Award' : group exhibition at **BOZAR**, Brussels [be]. 24.06 > 13.09

[2008] // 'PixFlow #2' : in group exhibition 'Emocao Art.ificial' at **Itau**, Sao Paolo [br]. 1.06 > 14.09

[2007] // 'Touch', 'Who's afraid of Red, Green and Blue' and 'spectr[a]um', on **Rogier Tower**, Brussels [be]. 26.12.06 > 15.12.08

Permanents artworks

[2022] // flux, Union Station, Toronto, Canada

[2019] // Zäit Wuert, Casino Luxembourg, Luxembourg

[2019] // Palimpsest, Wijkpark De Porre, Ghent, Belgium

[2019] // 365, De Hoorn, Leuven, Belgium

[2016] // 365, Quai 10 and La Vigie, Charleroi, Belgium

[2016] // Lux Aeternae, AZF Mémorial, Toulouse, France

[2016] // 10e-15, Temis Science, Besançon, France

[2016] // siloScope, Square Jules Guesde, Vitry-sur-Seine, France

[2012] // mosaique 15x26, Maison de la Mécatronique, Annecyle-Vieux, France

Artworks with LAb[au] in collections (selection)

[2021] // yes, no: perhaps - Hager, Strasbourg

[2018] // 2x540 kHZ - Kiasma, Helsinki

[2017] // origamiSquare 59 squares - Linklaters, Madrid

[2017] // origamiC160 Rhombi - Reynaerts, Duffel

[2017] // origamiC 20 squares 54 kites - Cosnova, Frankfurt

[2017] // origamiPenrose 71 kites and darts – Aegon, Amersfoort

[2016] // EOD02 - ZKM, Karlsruhe

[2016] // origamiSquare 192 squares - Linklaters, Brussels

[2016] // SwarmDots - Fidelity, Luxembourg City

[2006] // pixFlow02 - Itau Cultural, Sao Paulo

Monographic Publications

[2015] // concepts, modes, systems - R-diffusion

ISBN 978-2-916639-38-3

[2010] // MetaDeSIGN - Les presses du Reel

ISBN 978-2-84066-404-8

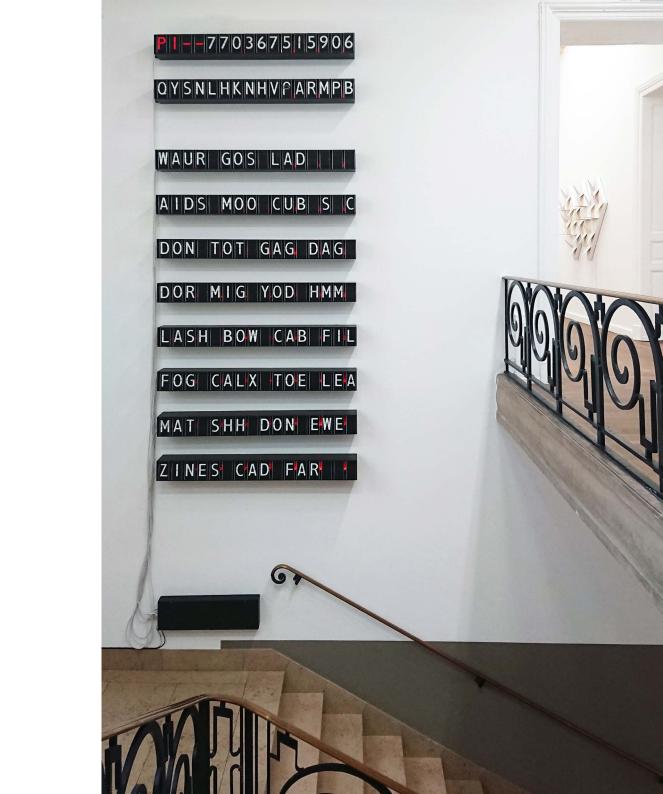


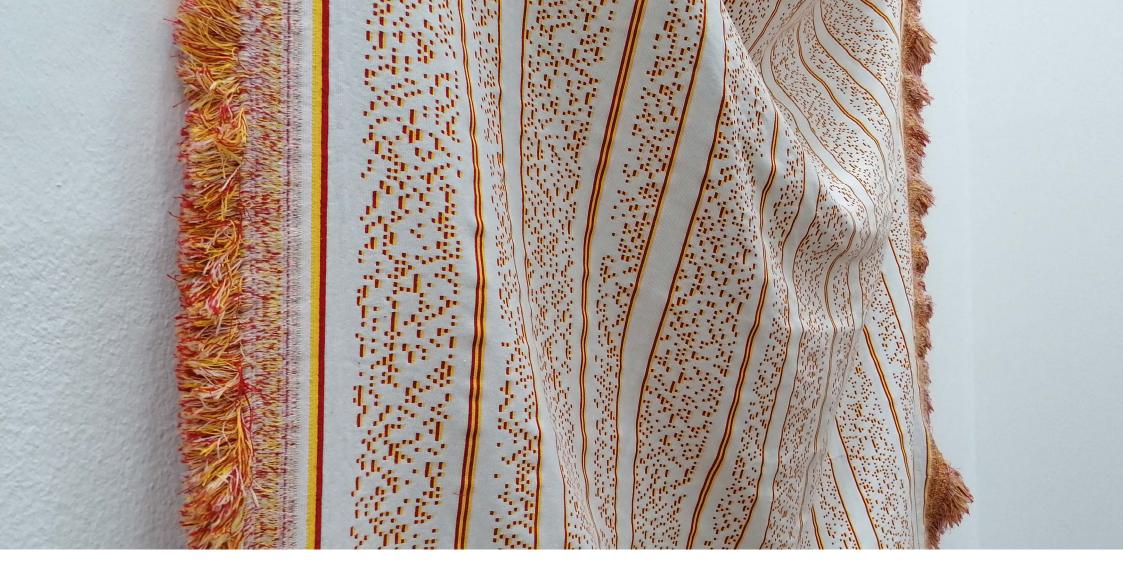
π 2019

This work confronts the viewer with the infinite string of digits of Pi. One of the only truly random sequences known so far, Pi contains all possible number combinations and thus, in theory, can describe the entire universe. In the process presented here, these numbers are first translated into characters, then analysed according to the possible formation of words. The eternal calculation of the Pi sequence becomes a sort of automatically generated poetry, which also can be seen as an attempt to decode the secret pattern, to listen to the universe.

aluminium 160 split-flaps custom tailored electronics computer generative software

10 pcs 1 50 * 15 * 26 cm





origamiJacquards 2019

The transcoding of the alphabet appears on four tapestries woven by a zero-one (under-over) Jacquard process. Based on the principle that weaving is a code, the fabric displays a language pattern that extends the notion of the flag as signal to the tapestry as encyclopaedia. The many possible ways of structuring the combinations produce diverse geometrical patterns, thus creating a connection between formal logic and written language.

jacquard tapestry generative software 1 80 * 1 80 cm





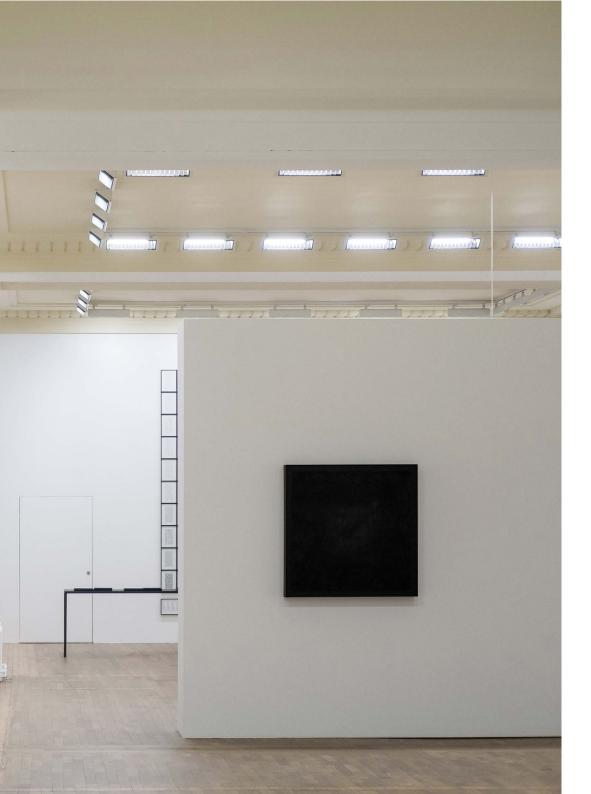




U-238 > Pb-206 2019

This work illustrates the material change from uranium to lead, known as "uranium-lead dating," a 14-step transformation process that changes one material into another. The transition takes several million years. Based on the same material/colour in two different states, the work investigates the notion of the monochrome and places it in relation to time. Although in fact identical, the painted colours appear as in far-distant times.

30 * 30 cm



chroma 2019

The paintings explore the legacy of the monochrome. Here, the same painting can be entirely white and at another moment, entirely black. In between these two states, the viewer contemplates a slow but continuous process of material transformation; the propagation and dissipation from one colour into another colour, and vice versa. This paradox of being one and its opposite at the same time questions the tautology of the monochrome as an absolute state of pure colour.









If one randomly permutes the 26 letters of the alphabet, it can take just an instant or an incredible amount of time to produce a 12-letter word: theoretically, it can take from 1 second to infinity. The system is initialized at the beginning of the exhibition, starting the permutation/query for a 12-letter word. Will a word emerge during the exhibition? Will we have the chance to see one? Which word will it be?

16 segment display custom tailored electronics computer generative software 60 * 8 * 8 cm





palimpsest 2019

Palimpsest is a public artwork conceived for the cooling tower of a former industrial site in Ghent, Belgium. The artwork constitutes two circular displays - one at the top of the chimney and the other at the bottom. The lower ring displays the process - the generation of random letters, while the upper one displays the result - words that have been accidentally created by combinatorial logic. The overwriting of found words on the top ring follows the palimpsest principle in a digital display, proposing an autopoietic light sign inviting passers-by to participate in interpretation and reading.

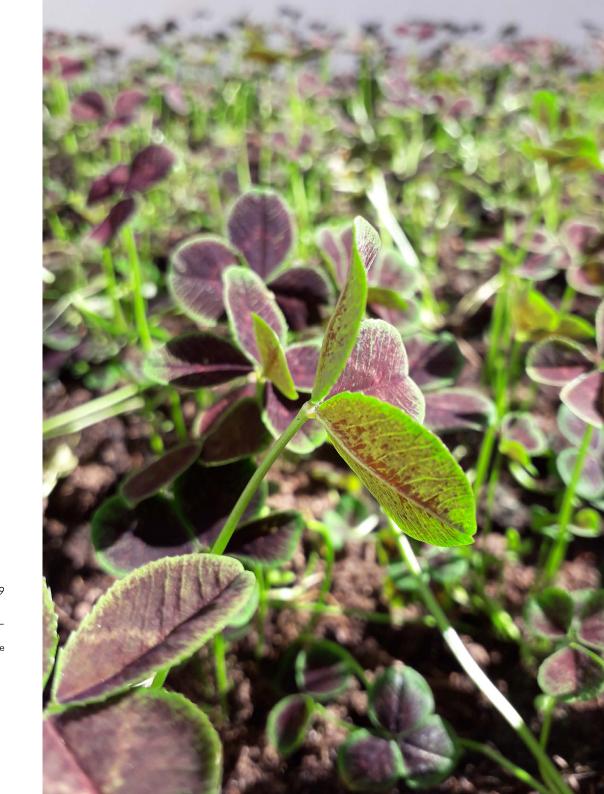
steel
aluminium
PMMA
custom tailored electronics
LED computer
16 segments LED displays
generative software



If Then Else 2019

If Then Else is a conditional statement in programming language, subjected to a Boolean evaluation, true or false, 1 or 0. The origin of the expression can be traced back to language philosophy and its predicate logic, which enables us to relate algorithmic and conceptual thinking through semantics. The sign's handwritten look tempers the austerity of both the statement and the cold light, lending the phrase an almost poetic dimension.

80 * 40 cm



Good Luck 2019

The project deals with the difference between 'chance' and 'luck'; between its probabilistic dimension and its symbolic understanding. By exhibiting a field of Trifolium Pentaphyllum; a genetically engineered variation of the commonly found Trifolium Repens, the artwork points out the tension between manipulation and imagination.



OMG 2019

The artwork aims to decode the universe's cosmic rays by rendering them into light and sound. Cosmic rays are high-energy particles that circulate in the interstellar space. Since light travels faster than cosmic rays, they arrive on Earth up to 10 million years later than their origin: the extinction of a star. As such it leads us directly to the relativity of time: we measure something which does not exists anymore. Cosmic rays are carriers of this past existence.

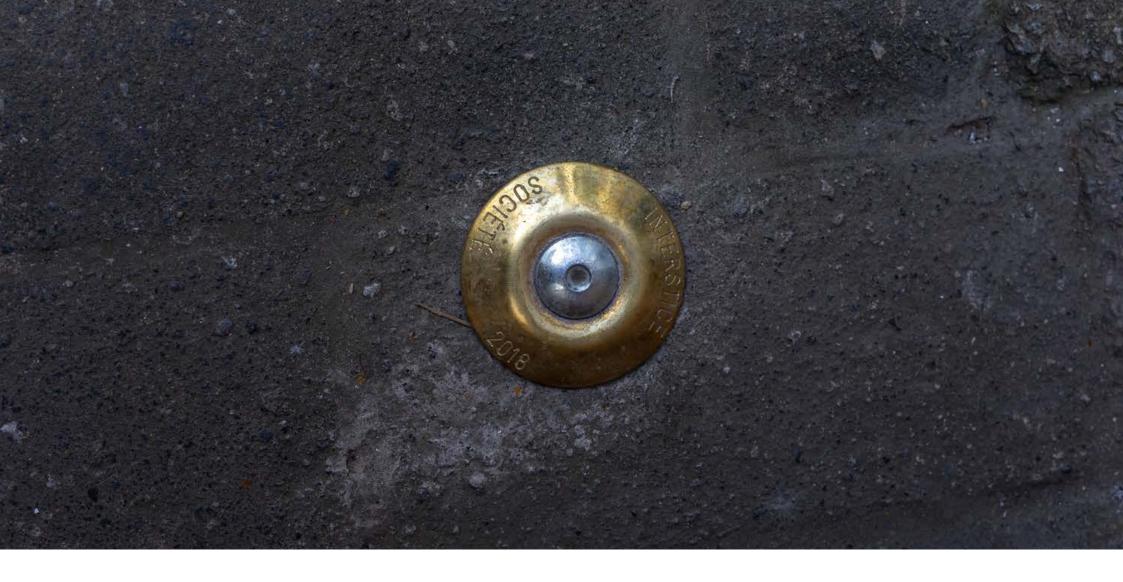
Geiger-Mueller tubes fluorescent light tubes speakers custom tailored electronics generative software



Positions of Past Presence 2018

Inside a selected zone of a wall every existing hole is filled with a screw. The screws directly address our memory to remember something which has existed at that very position; a trace. The mental outline of the selected zone operates as a frame containing an arrangement drawn from other works of art, but which now through this gesture have turned into a new work of art. Each of the used screws is logged by the name of its past and the date of its new presence, create yet another trace.

protocol screws



Interstice 2018

The artwork follows a simple protocol: a geometer measures with highest accuracy the space and marks his triangulation points on the floor. His resulting drawing is superposed to the original plan of the architect. On this basis is drawn a map pointing out the gap between both, the added or missing millimetres and the difference in angles. By unfolding the map the visitor is invited to explore all limits of the space. By doing his attention is drawn to this little tiny space, the interstice, which exists between the plan; what has been imagined, and its realisation; what has been done.

geometer points architectural map

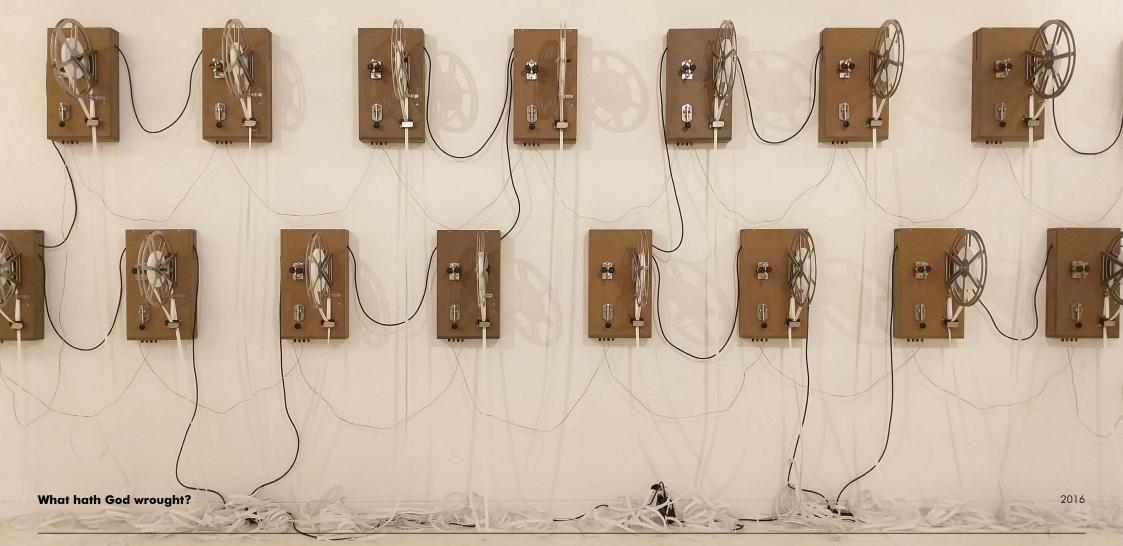




Modern Times 2017

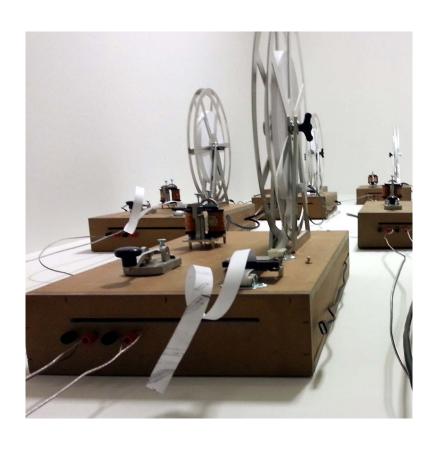
When in 1340 Jacobo Dondi gave the clock its form, he shaped more than a visualisation of time: he created an image of the world. With its circular and cyclic finitude, it represents the universe as a mechanism and establishes one of the strongest icons of the Renaissance world. In 1970, the digital clock replaces the watch hand and its dial with a linear display. By placing the analogue and the digital clock next to each other, the artwork 'Modern Times' creates a tautology of the notion of time with their corresponding circular and linear world view.

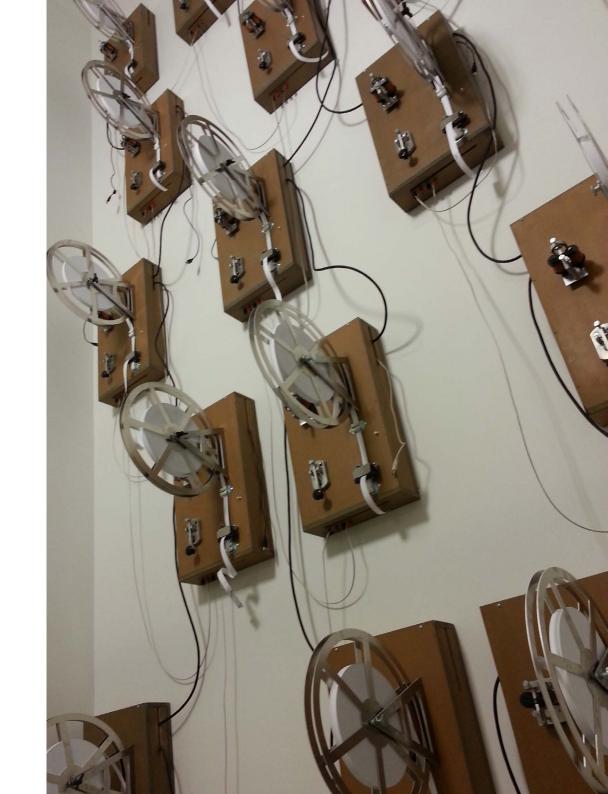
analogue clock digital clock



The title quotes a line from the Book of Numbers in early modern English. It was the first message ever transmitted by telegraph in 1844. Its invention marks the beginning of communication technology based on electric binary coding and information's separation from its material inscription. The telegraphs that make up the installation are cross-linked in a network, while sending and receiving the quote from one to the other. The hammering sound of their keys and the beeping of their receivers translate the messages into sound and the rolls of paper drifting on the floor trace their exchange. In time, collusions and mistakes appear in the closed system and alter the signals. The Morse orchestra deals with rationalism and its belief in progress and posits by contrast a self-regulating system in which error rules and becomes the parameter of its evolution.

MDF custom tailored electronics and mechanics impact printers generative software









365 2016

'365' is an installation constituted by monumental custom-tailored alphanumeric 16 segment displays, displaying words and geometric configurations. The project title refers to the number of days in a year. Every day the system randomly generates a different word, following the unpredictable and combinatorial logic of the system. This agnostic approach encourages interpretation and associations of the displayed word. This auto-poetic machine questions through seemingly meaningless words our habits; 'métro, boulot, dodo', and renews the reading of our daily post-industrial landscape.

steel, aluminium pmma custom tailored electronics LED computer generative software











365 (2016, Charleroi) : www.facebook.com/charleroi365

365 (Leuven, 2019) : https://weer.sluispark.be/index.php?p=mnu_webcam

Zait Wuert (Luxemburg, 2019) : www.instagram.com/zait_wuert/







Thousand Six Hundred Light Years





origamiSemaphore

This work explores the tessellation of planar geometries along with combinatory logic, using the principles of semaphore signalling to extend its formal language to written/spoken language. The starting point consists of five modules transcribing the coding and anthropomorphic constraints of the flag telegraph (semaphore) into a geometric and kinetic construct. But instead of displaying words, the work randomly permutes letters, producing equal geometric compositions. Here, written language, where one would normally locate meaning, is reduced to probability, all possible meanings within the same construct.







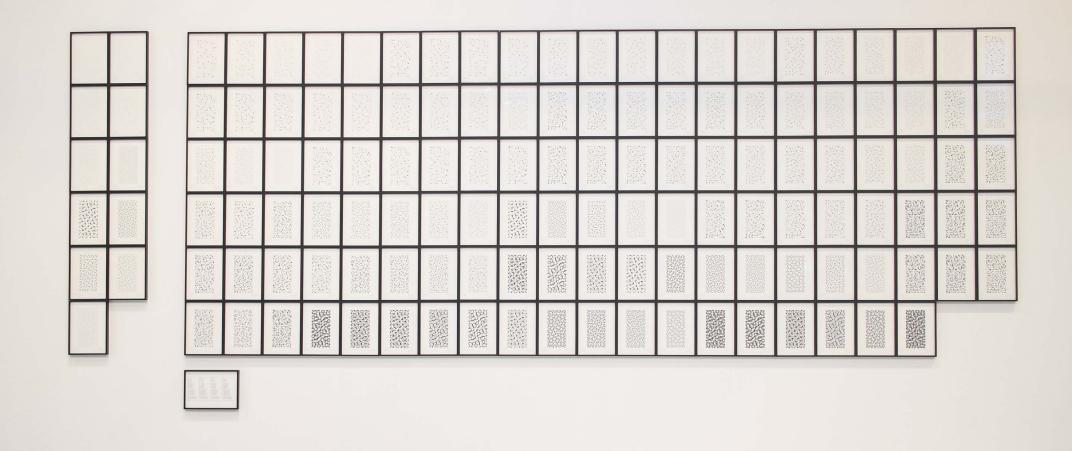


origamiPinwheel, 70 triangles x 12 kites

2018

These kinetic reliefs are based on different tessellation filling a surface with triangular shapes. The recurrent pattern is created by the multiplication of a triangle forming a similar bigger one. The work is thus part of an endless, larger whole. The geometry is complemented by colours underlying the constituent parts and highlights the movement of the tiles. Through irregular motion within a regular composition the work alternates between order and disorder, predictability and unpredictability.

aluminium, steel MDF paint servomotors custom tailered electronics generative software 1 25 * 2 50 cm



origamiLexicon 2017

Composed of a series of prints visualising the steps of the instructions which are at the base of the kinetic behaviour of the origamis, the Lexicon constitutes the conceptual framework of the origamis. Its procedural nature questions our ability to translate creative thought into written rules and, as such, investigates the relationship between art and language.

A4 120gr Steinbach paper graphite black anti-reflex frames library





origamiPermutations 2016 - ...





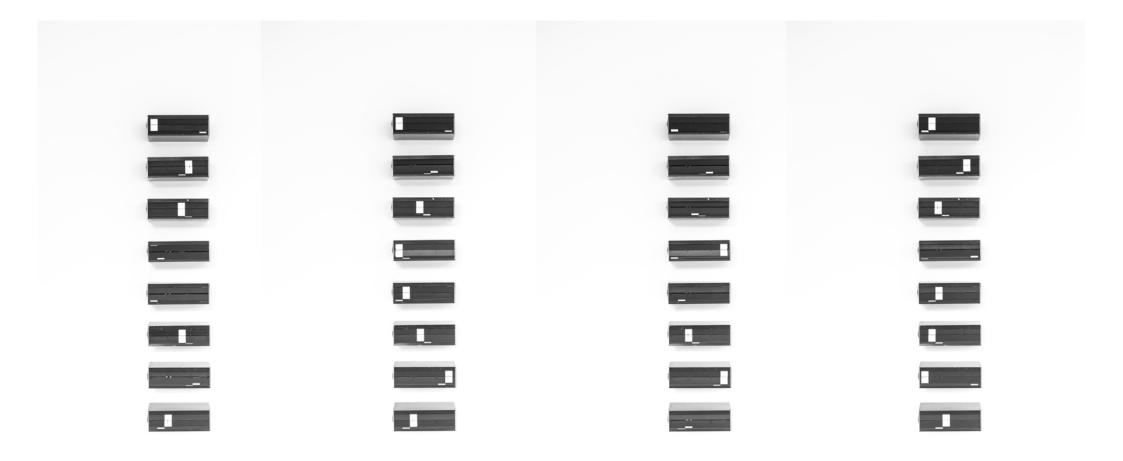




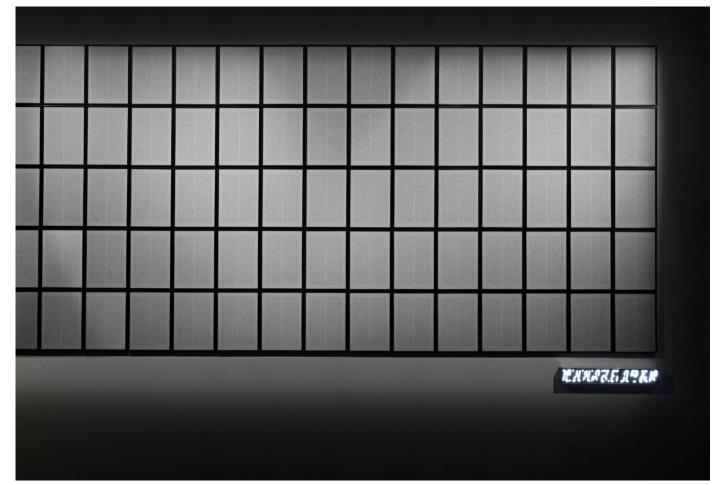
deepBlue 2016

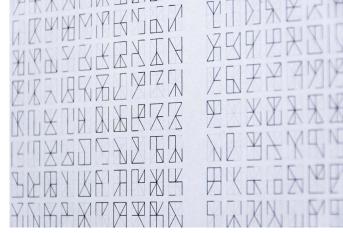
This work progresses over 43 pages from white to black, passing through 256 shades of blue. Each of them is visualized by its binary encoding in the form of an 8x8 grid. The columns and rows of the grid are then read as numbers and letters. Employing the combinatory logic of the binary system, which is also the basis of the chess game, the work creates a nonmetaphorical relationship between colour and text and gives it historical perspective with the title reference to Deep Blue, the IBM computer that won against the world chess champion Garry Kasparov in 1997.

computer generated prints generative software



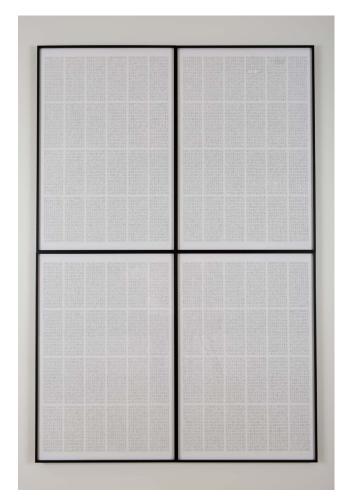
808 2016

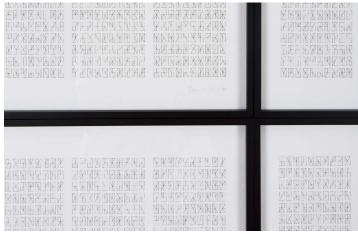






1 of a Billion Days

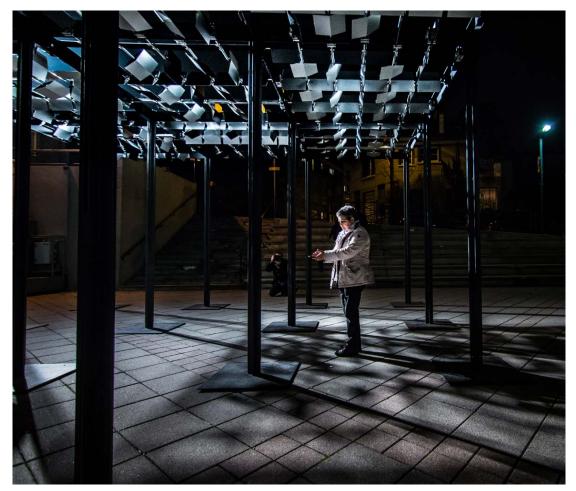






1 of a Billion Weeks







pergola 2015

Kinetic light artwork constituted of an elevated steal frame supporting rotating squared tiles. The artwork invites the spectators to enter in a space under this artificial sky to contemplate patterns of light and motion.

steel, aluminium paint moteurs custom tailored electronics reactive software



10e-15 2014

This public artwork was created for the French research centre Femto in Besancon. Femto is a prefix in the metric system denoting a factor of 10e-15. Its applications range from optics to the manipulation of light photons. The installation transcribes this exponential measure into 15 Fresnel lenses, each with its own focal point. They form a continuous frieze of progressive magnification playing on the viewer's perception. An 'abstract' scale is transformed into a 'concrete' visual game by breaking light into its colourful spectrum producing moiré effects and chromatic aberration besides bending light to magnify its surroundings.

aluminium frame 15 custom tailored fresnel lenses light object 15 00 * 65 * 19 cm





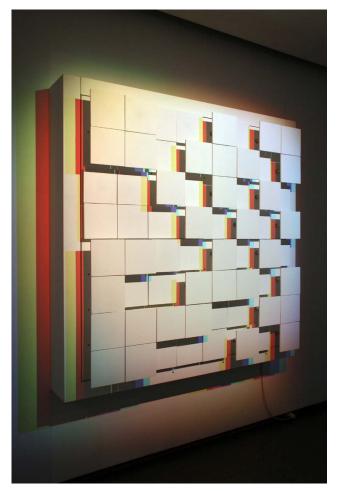




mosaique 15x26 2012

Kinetic light artwork assigning the visible spectrum of light to the position (space) and motion (time) and consequently unifying colour and motion through the phenomenon of light.

wood 390 linear motors RGB spots custom tailored electronics 1 computer generative software 6 20 * 3 40 cm





mosaique 8x8 rgb

Questions the relation of light to position and motion by actuating a regular grid of 8*8 squares and refracting RGB spotlight in its constituting colours.

MDF paint 64 linear motors RGB spots custom tailored electronics generative software 2 00 * 2 00 cm





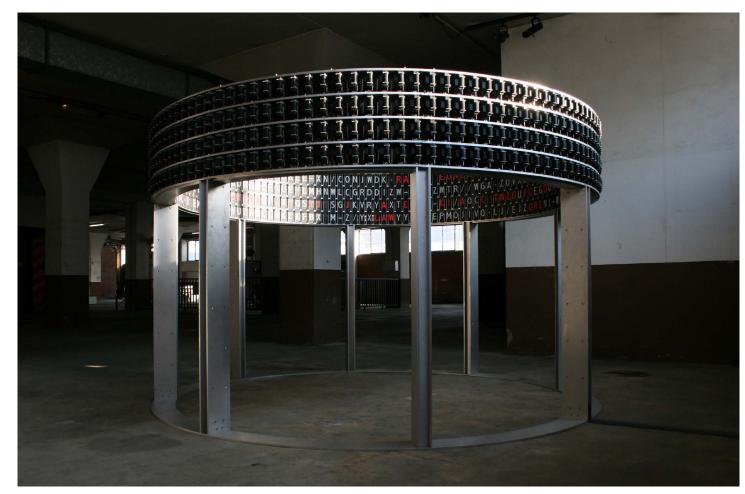


mosaique 5x15 bw 2018

The mosaic is based on a regular grid of 75 tiles. Each tile can be activated individually and is retro-illuminated. This produces white luminous surfaces against the black background, creating the illusion of shadow. The inversion between light and shadow and the varying intensity of the gradients further creates an optical effect: extracting a black tile causes the inverse movement of a retracted white tile and vice versa. The motion of the tiles follows combinatory logic, balancing between ordered and random patterns, configurations.

wood
75 linear motors
LED
custom tailored electronics
generative software







signalToNoise / signalToNoisePermutations

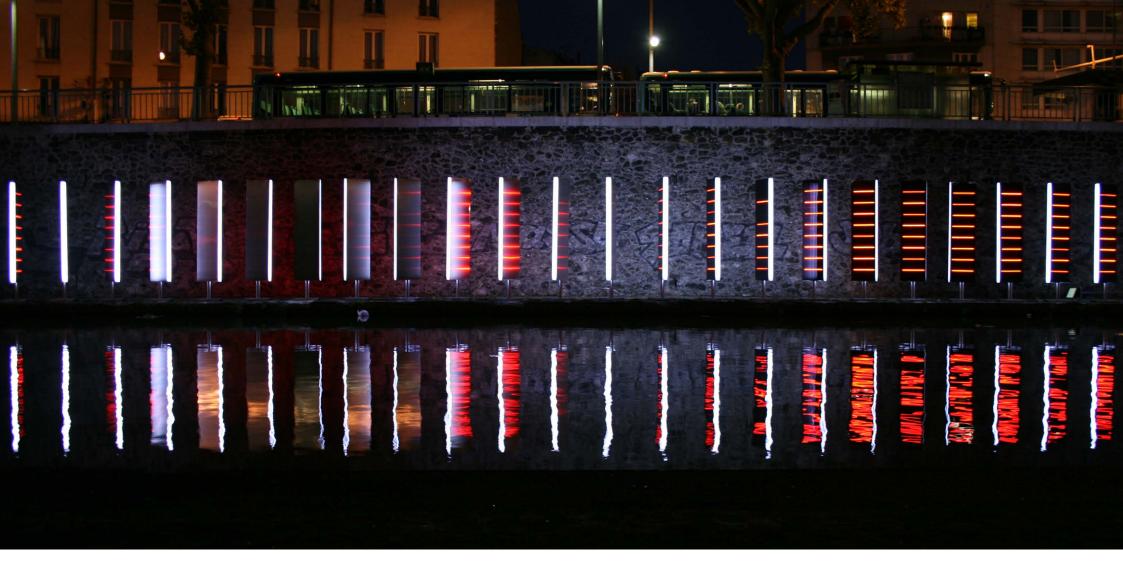
2012

The term 'signal to noise' is a measure used in science and engineering that compares the level of signal to background noise. The work of the same title puts the viewer at the centre of an autopoietic machine, a circular installation formed by 512 mechanical split-flaps. They are spinning at a variable speed equal rhythm determined by the calculation process analysing in the maze of random letter combinations the appearance of a word.

aluminium 512 split-flaps custom tailored electronics 1 computer generative software

A D C MAG I I MA A MV HNOC/UVNJCAHU. VUVACIONV7/DNA TIE-TVOLI DV H / A H > 7 A H D D I CA INMODVIINCE TCTJENIA UNTUWMTCA - A TIV-WIIANI HAUNETHAD / IC AWMI JANGHURUC DV GO - EC I / C J D A V D I BINTE UTAMBAIAMT HVII-I STOEIA DMANELLUMINALY CM-CJHVIO/UNOI E JO / DNODN INTHILLA UITUW - VI /700COII/UVAJ ET-D ٨ MIJCINT(WN-D7D I I O V - O M I U O V N

CCNDEDITIOMONO 7W / LITM WI W M ILVUL- OIL STOIL 111 /1-110 WACT TUCHUI n-nccvwnc HDCMC 7 NU AC **^ + ^ ^ ^ 7 ^ +** N / NIM VW/IIIWI HII7 FEGVAM רוחר אסר DIMILEIVAM - 25 M A VIINVCVVCUIIEDV HULDELWHIZEM WA II - an - M C CVI/TU/II/07UII WANDC - CADILANII NI DMD IN LI MA MINIMIGUA- HOLC



Binary Waves

2008

Kinetic light artwork measuring the electromagnetic and traffic flows and transposing them into luminous, kinetic and sonic behaviour, transmit by 40 panels of 3 meter high and 60 cm wide turning around their vertical axis rendering visible the invisible flows of the city.

aluminium, mirror, pmma LED piezo custom tailored electronics 1 spectrum analyser 1 computer reactive software panel: 3 00 * 60 * 12 cm

> installation: variable





framework 5x5x5 2007 - 2009

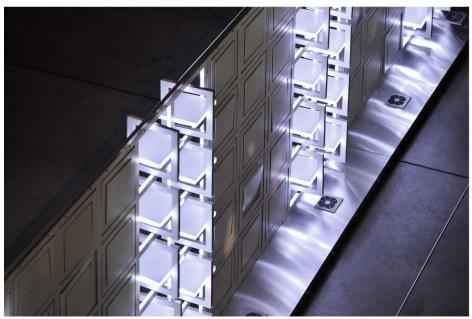
Kinetic light artwork extending the bi-dimensional screen space by transposition of its pixel resolution to the physical space allowing to transcribe captured data from the physical environment in a kinetic and luminous play.

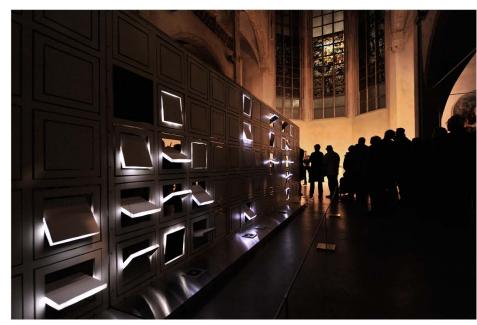
aluminium, LED, lexan custom tailored electronics 250 servomotors 50 sensors 5 computers reactive software

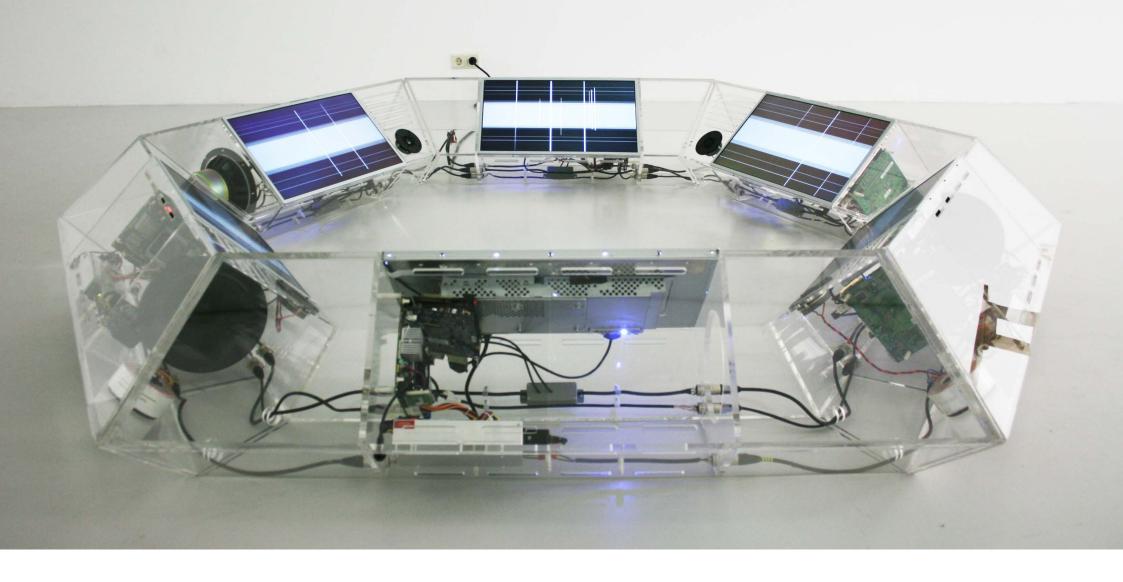
10 00 * 2 15 * 85 cm











particleSynthesis 2010

Sound installation using custom 3D real-time engine relating particle rendering and granular synthesis in a 360° audiovisual construct.

Plexiglas 6 networked computers

6 screens

4 speakers

custom tailored electronics generative software

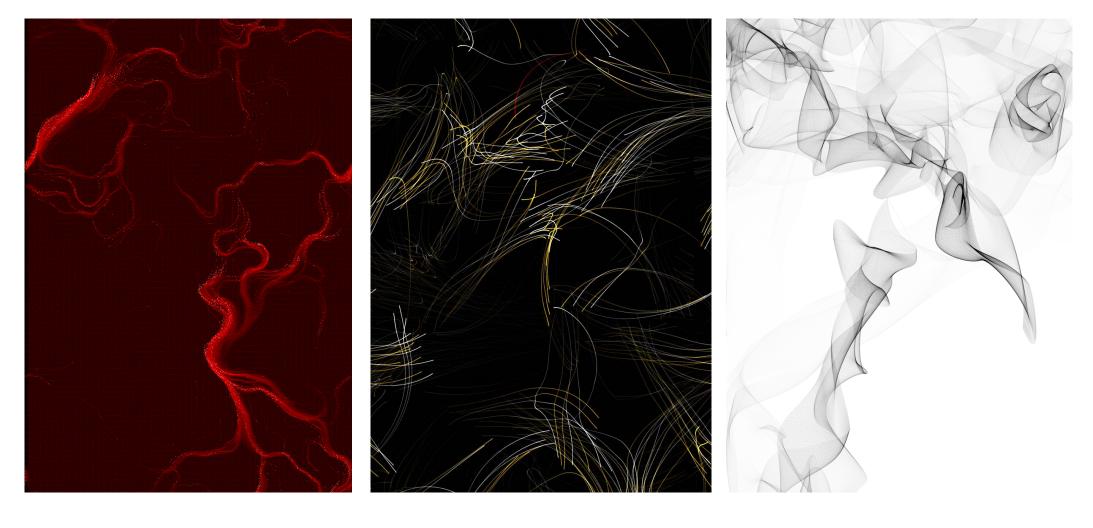
ø: 3 00 cm h: 45 cm







Consoles 2007 - 2011



pixFlow #2 2007 swarmDots 2009 particleSprings 2011









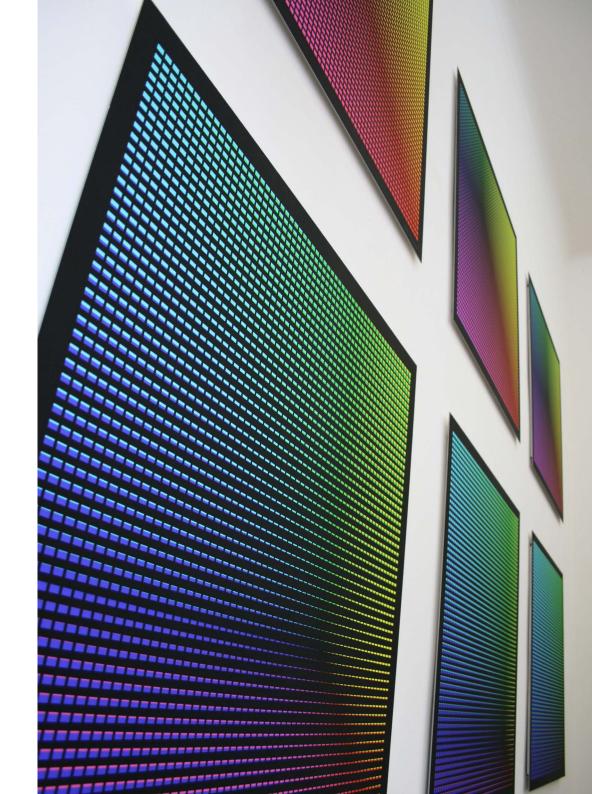






chrono

2007



chronoPrints 2009

The units of time measurement - hours, minutes and seconds - are associated with the primary colours of light - red, green and blue. This association results in a process where the surface is gradually filled with coloured surfaces. Each of the 24 prints reflects the pattern of an hour of the day, from the first second in the upper right-hand corner to the last in the lower right-hand corner, and shows the relationship between colour and time.

1 10 * 1 10 cm 60 * 60 cm



fLux 2022

Reactive light artwork transcribing passer-by's motion into luminous and sonic behaviour, transmit by 96 vertical profiles, constituting a dialogue between light, lux, and the passage of people, flux.

stainless steel structure with lexan diffusers LEDs custom tailored electronics reactive software h: 4 00 cm l: 70 00 cm