



ROBERT TURNER COLLECTIVE

PORTFOLIO

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PRESENTATION

This is the first time I see digital art with a soul

– C.J.G.



The Robert Turner Collective was founded in 2019 by Louis-Hadrien Robert and Paul Turner. Louis-Hadrien lives and works in Clermont, France and Paul in Geneva, Switzerland. Both have PhD's in mathematics.

Intent on creating works that, while often abstract, remain fundamentally human, the collective explores the relationship between the mathematics of digital images and aesthetic perception. Algorithms are used at an early stage of the process to create basic compositional elements for subsequent hand-crafting. The choice of elements, their relative weightings, and all aspects of colour, are put back into human hands to be blended into a final composition. For still works it is the physical piece that is considered final, rather than its electronic precursor. Such works are "digital" only in as much as a painter's canvases are "chemical" because of the prior mixing of the paints.

The collective is active in many domains – audiovisual installations, performances, moving and still images – often working in transdisciplinary projects involving music, sound art and dance.

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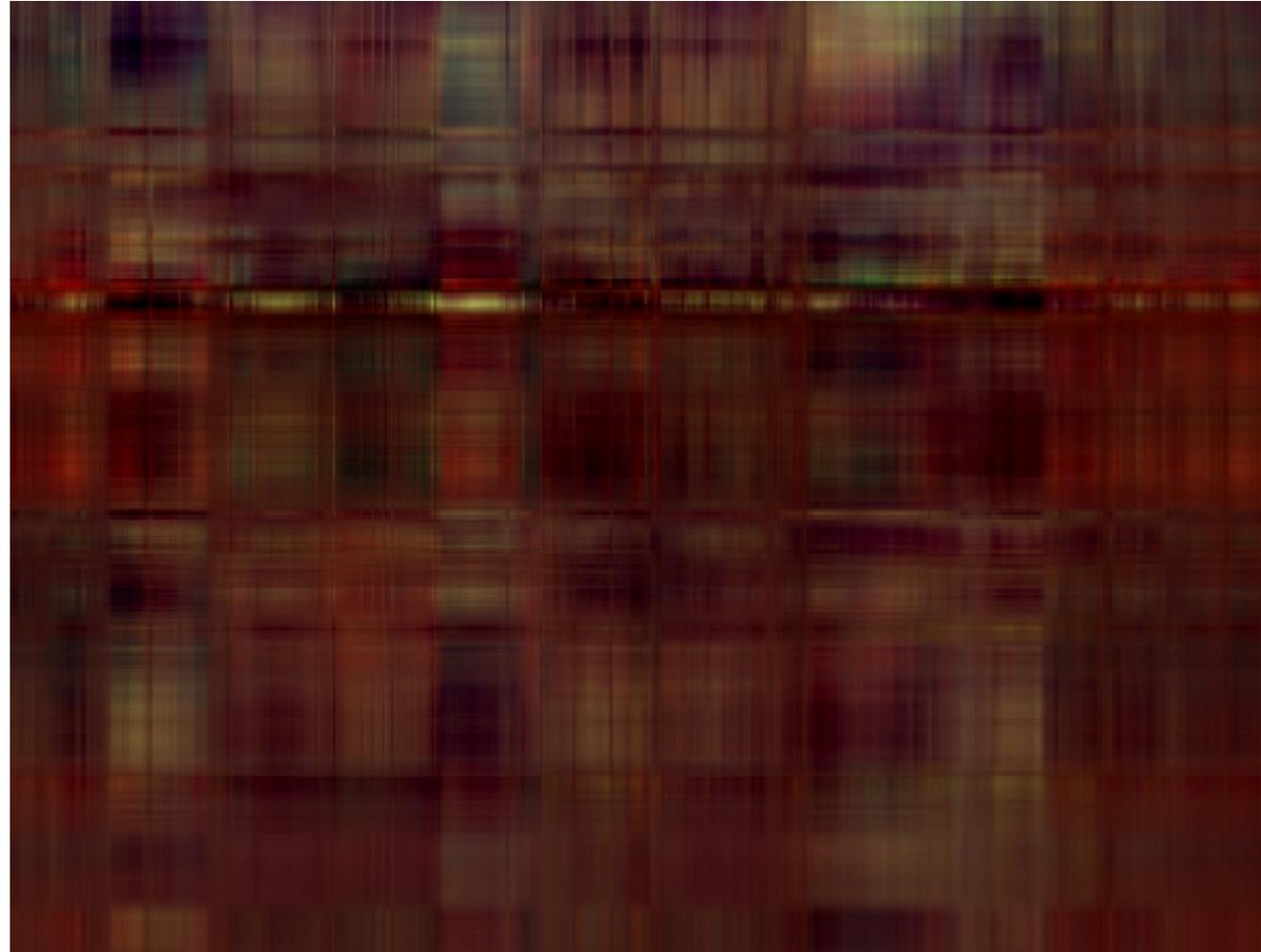
- DANCE
- SOUND

CV

STILL WORKS

ALGORITHMIC ABSTRACTION

Algorithmic Abstraction is a method of extracting the essence of an image in a world in which perception is through an algorithmic looking glass. One central motivating question is: what does an image look like from the point of view of an algorithm? Visual building blocks are abstracted from an original image and these parts — playing the role of the painter's palette of paint — are the basis of the subsequent composition "by hand". Aspects such as colour, weight, influence, balance are all non-algorithmic. In the resulting work, the observer is often left free to impose their own interpretation.



La Tourelle, 2020

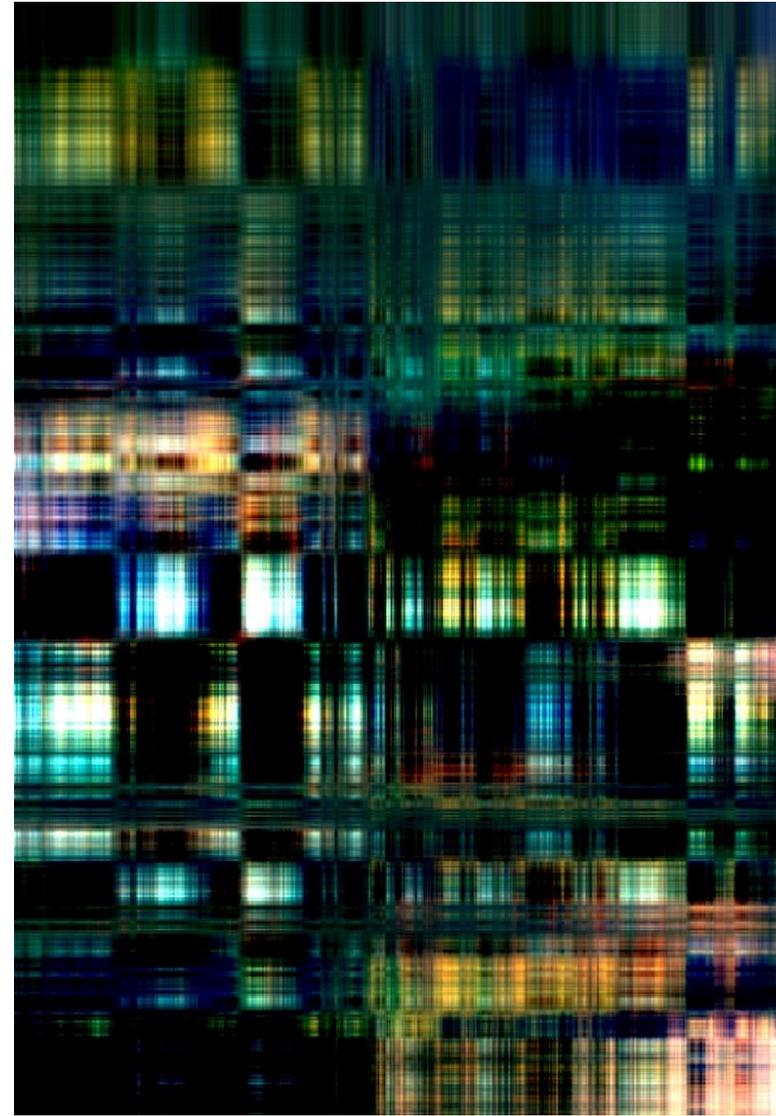
Ink on Hahnemühle paper Albrecht Dürer
53 x 40 cm



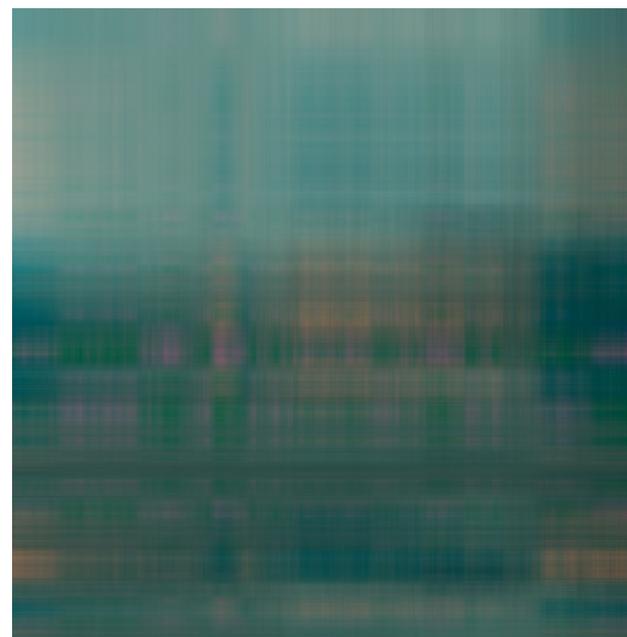
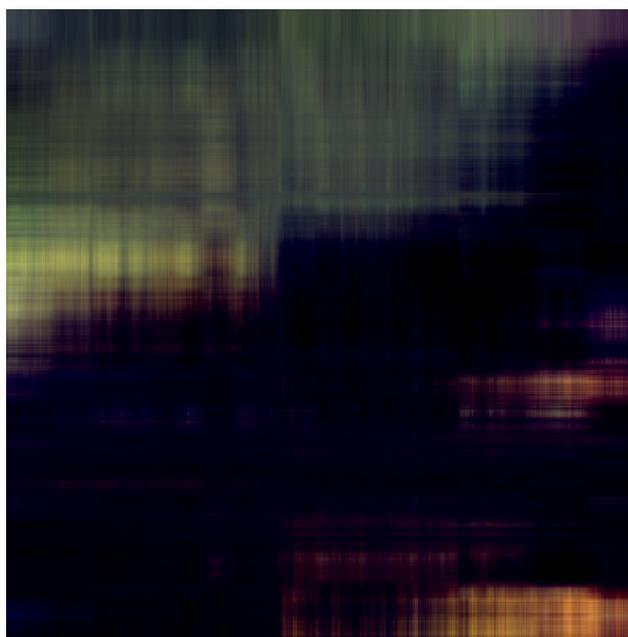
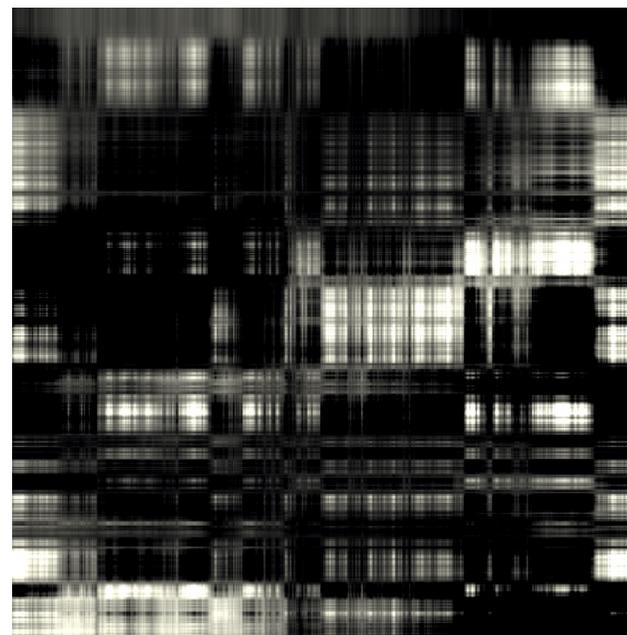
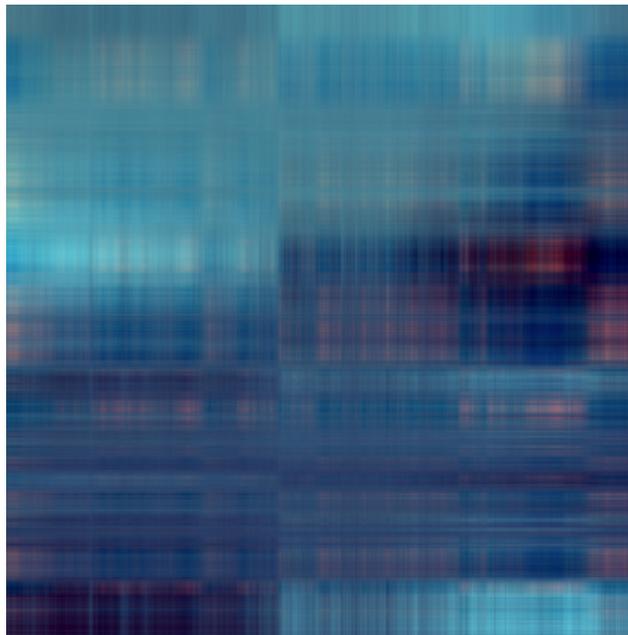
The Metaphysics of Funk, 2019

Ink on Hahnemühle paper Albrecht Dürer

100 x 100 cm



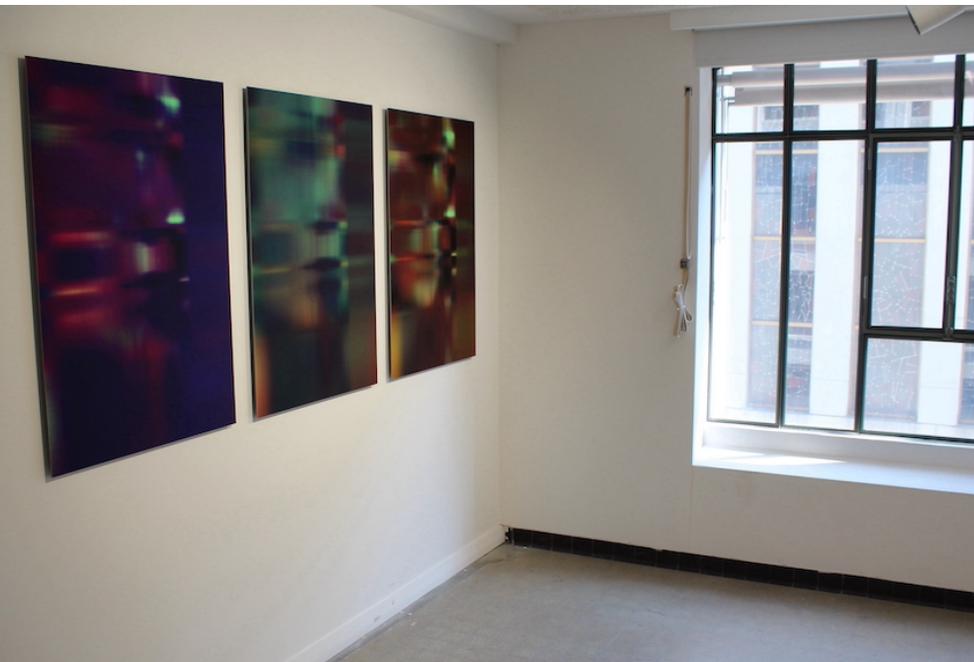
The four works displayed here, along with the three on the previous page, are from the series Pohutukawa, all created from a single image — a pohutukawa tree, native of New Zealand. Each work, despite conjuring up a different reality, was created out of the same basic visual palette of algorithmically abstracted elements, and no trace of the original image is present.



Pohutukawa series

Ink on Hahnemühle paper Albrecht Dürer

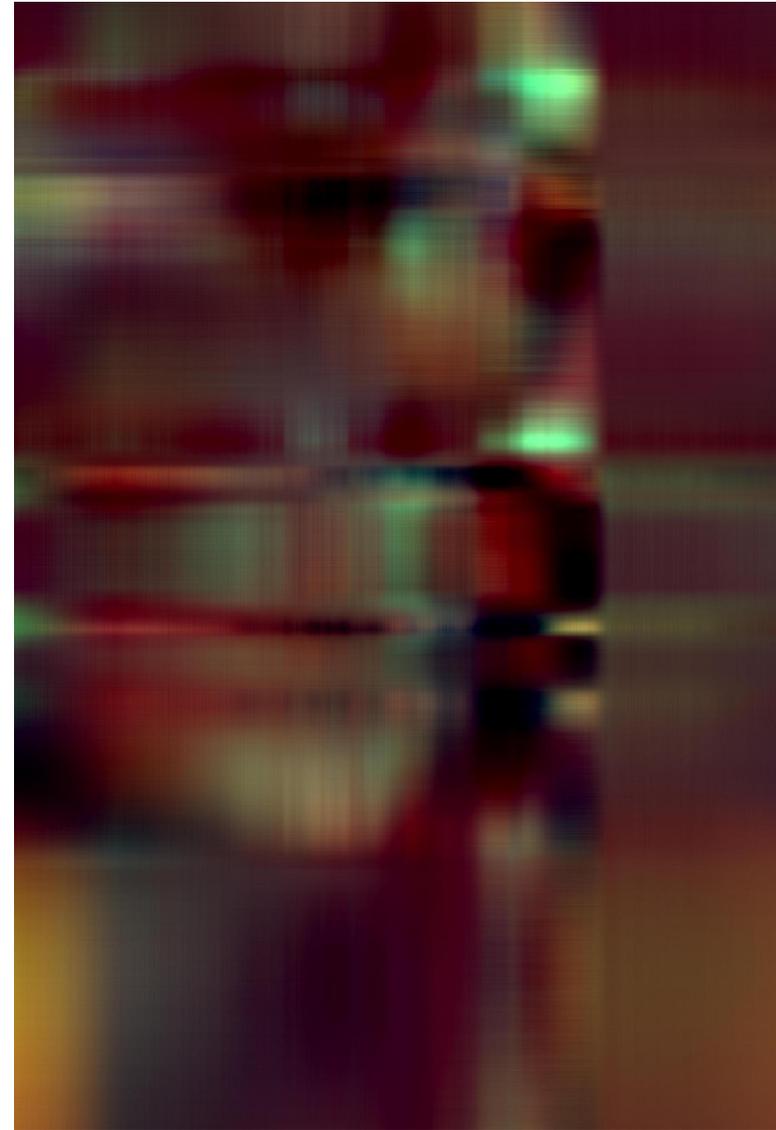
Each work 60 x 60 cm – 100 x 100 cm

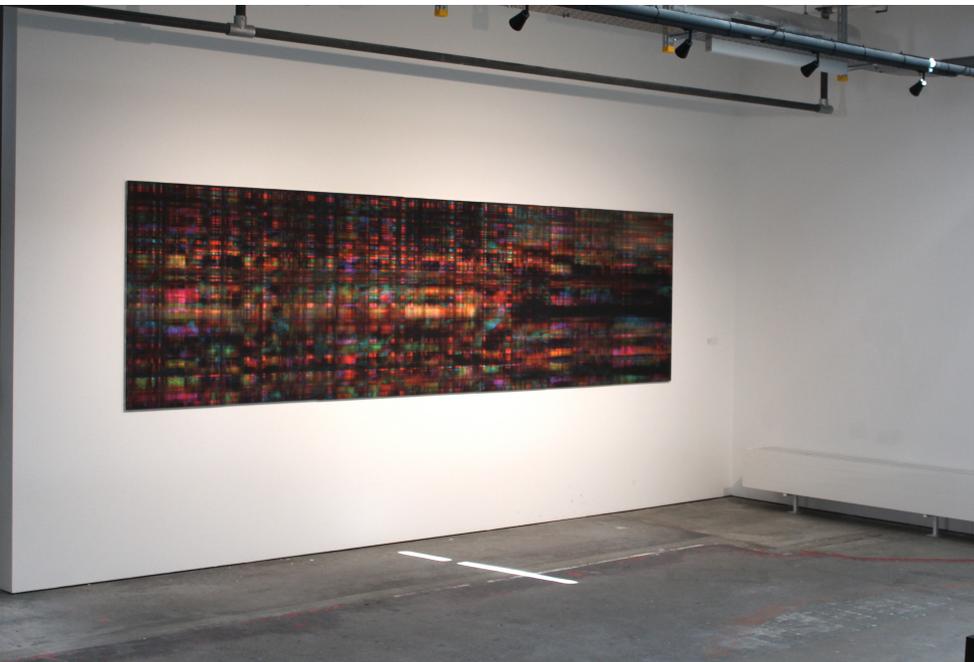


Far Away, 2022

Ink on Hahnemühle William Turner paper on dibond

Triptych of three 70 x 100 cm

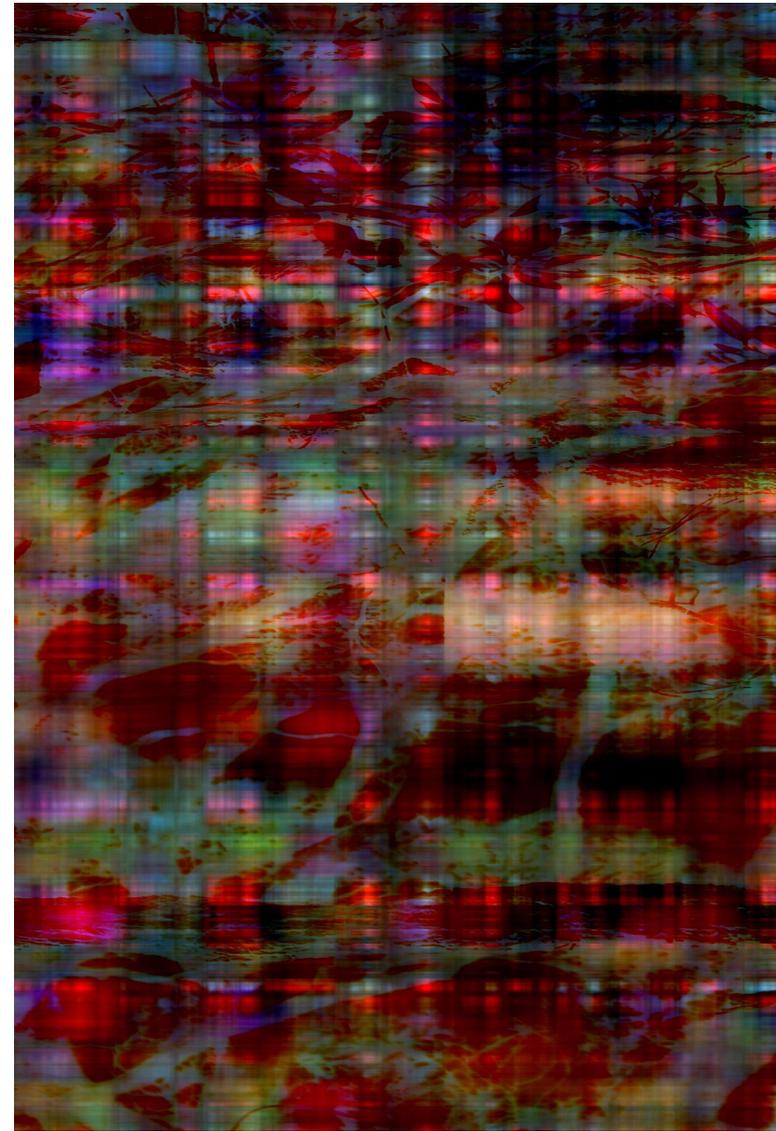




Ecumes, 2022

Ink on paper on cardboard

420 x 120 cm

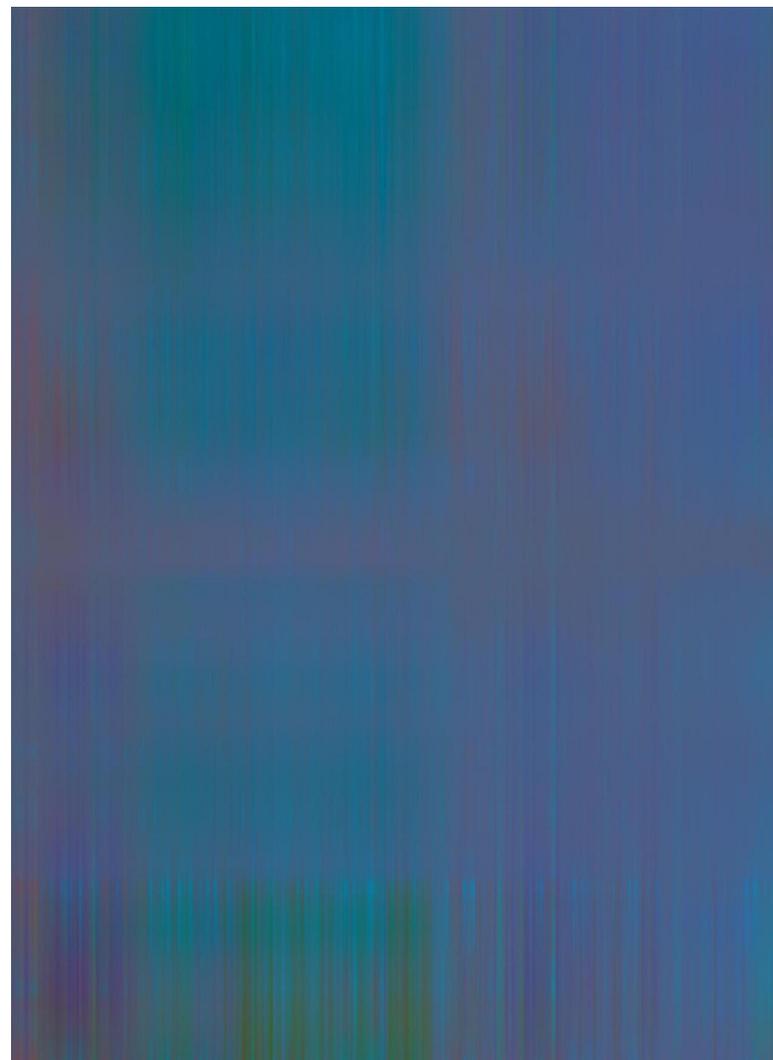




Du bout de la pensée I and II, 2022

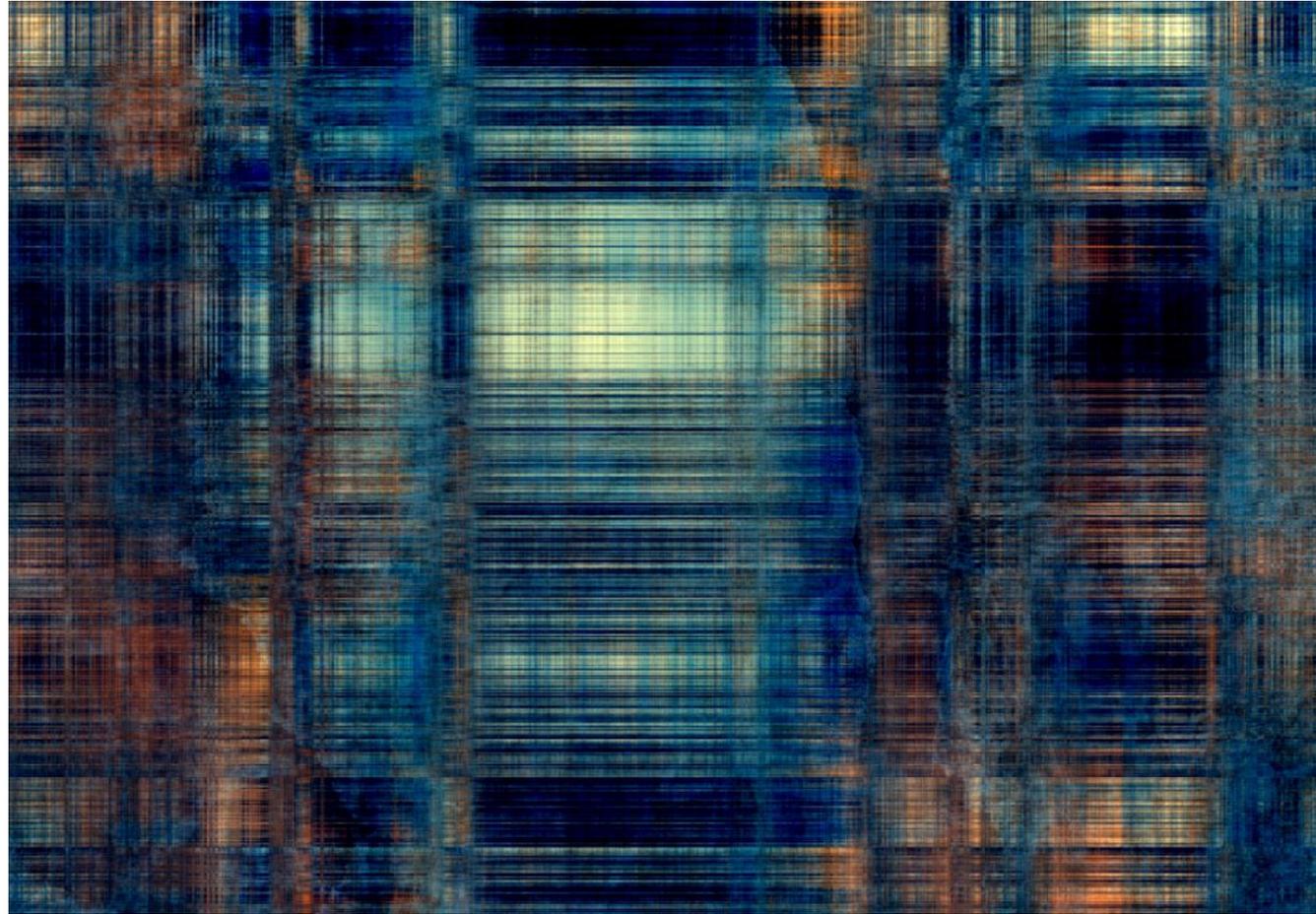
Ink on paper on cardboard

Each 240 x 300 cm



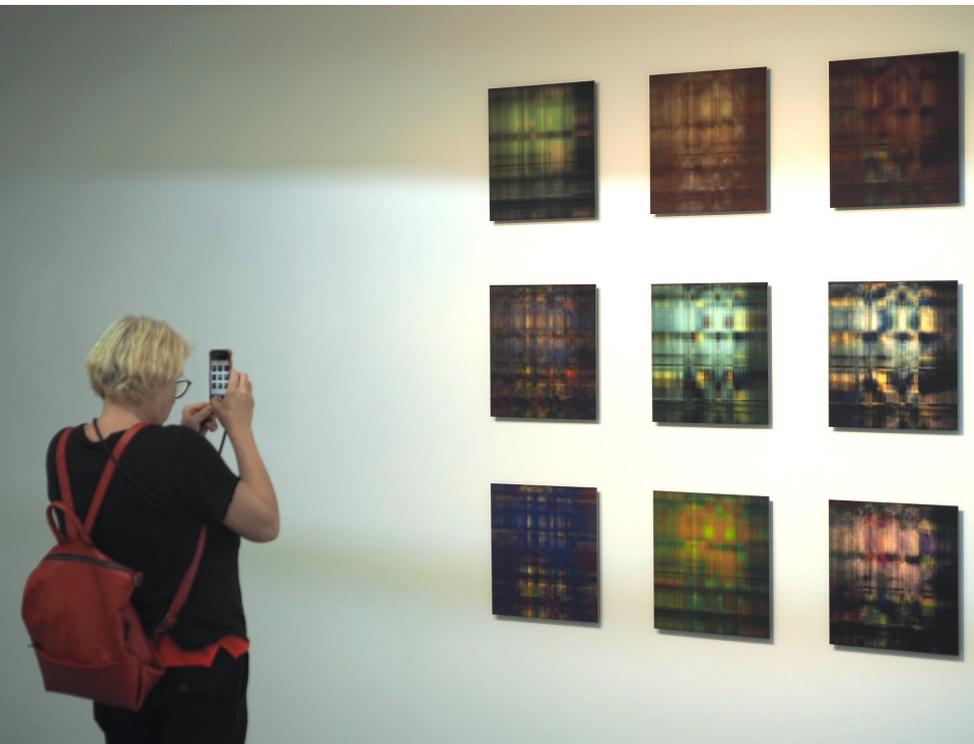
Rotation

A combination of images can be the result of a simple weighted sum, but the straight line path can be substituted by more interesting trajectories in the space of images. In particular hybrids can be obtained by “rotating” two source images within the multidimensional space of decompositions arising in the process of Algorithmic Abstraction. These non-linear blends of two real-world images are themselves then used as source images for compositions based on their algorithmically abstracted components.



The Unforgettable Sound of Forgotten Freedom, 2020

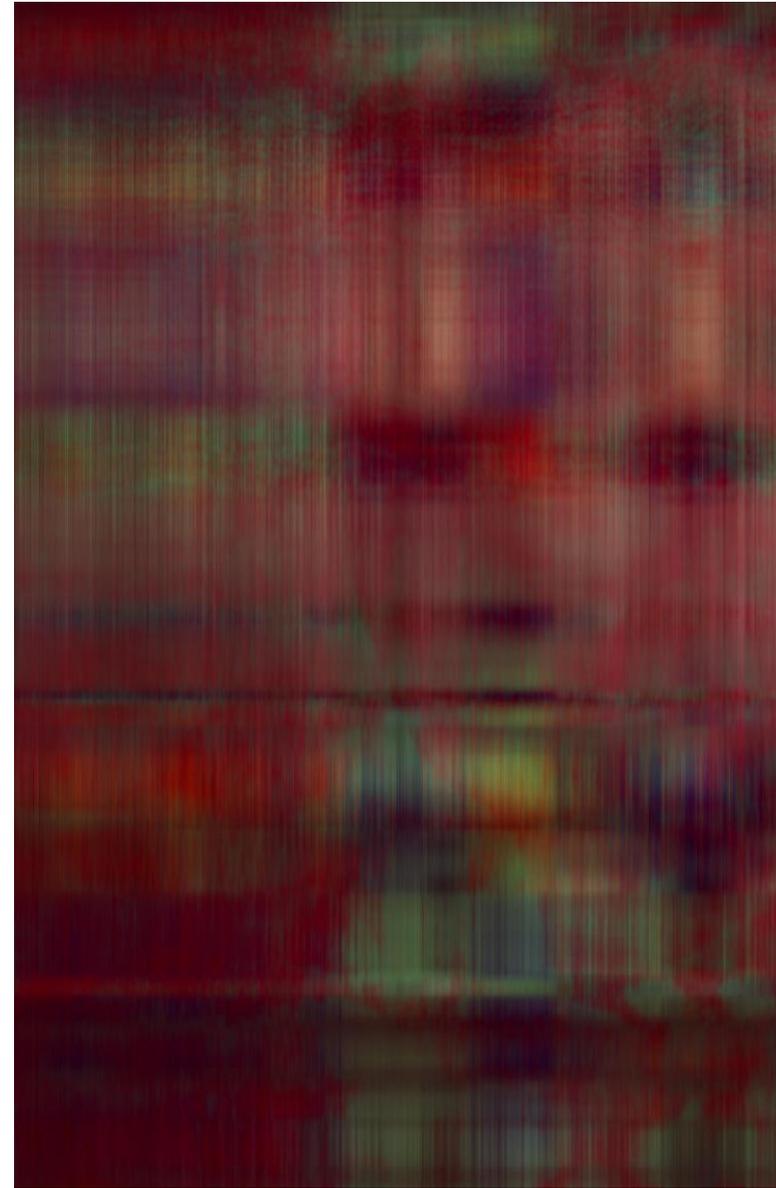
Ars Electronica Global Gallery



Relative Radiation Nine, 2022

Ink on Hahnemühle paper Torchon

Nine of 40 x 40 cm





Unknowable Woman, 2020

Ink on Hahnemühle paper Torchon

20 x 20 cm



Doubtful Branch, 2020

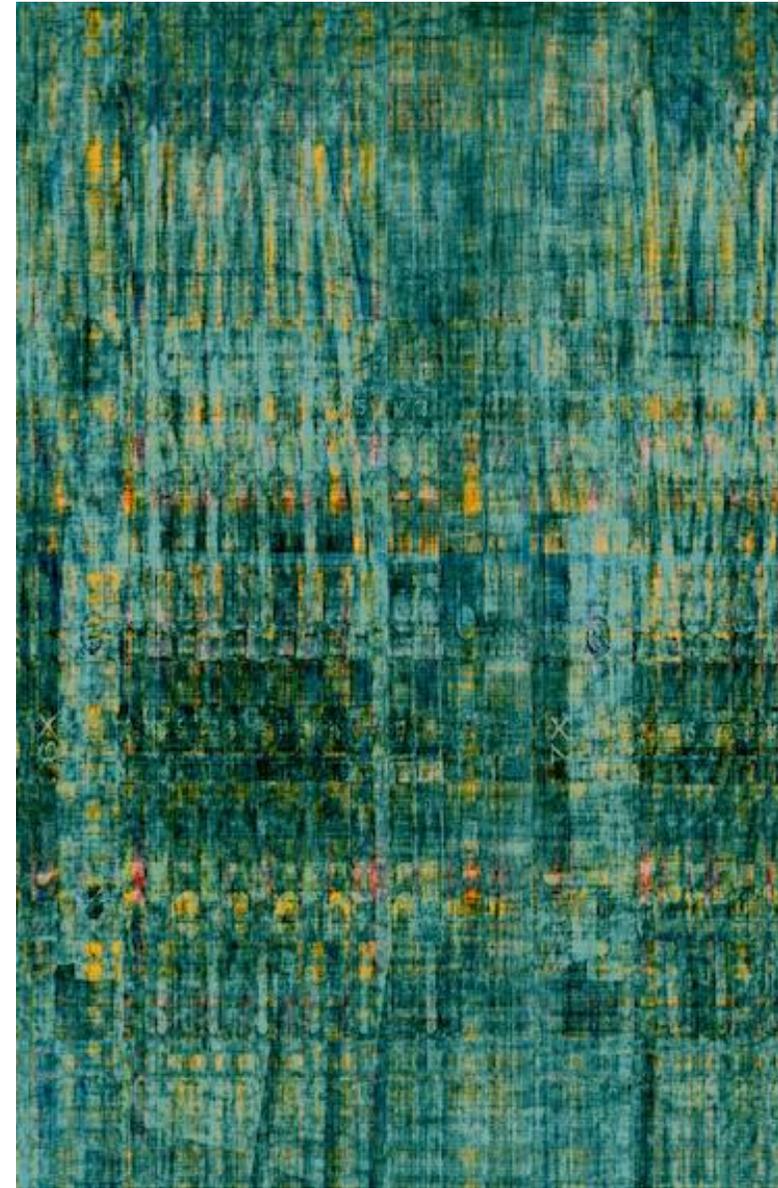
Ink on Hahnemühle paper Torchon

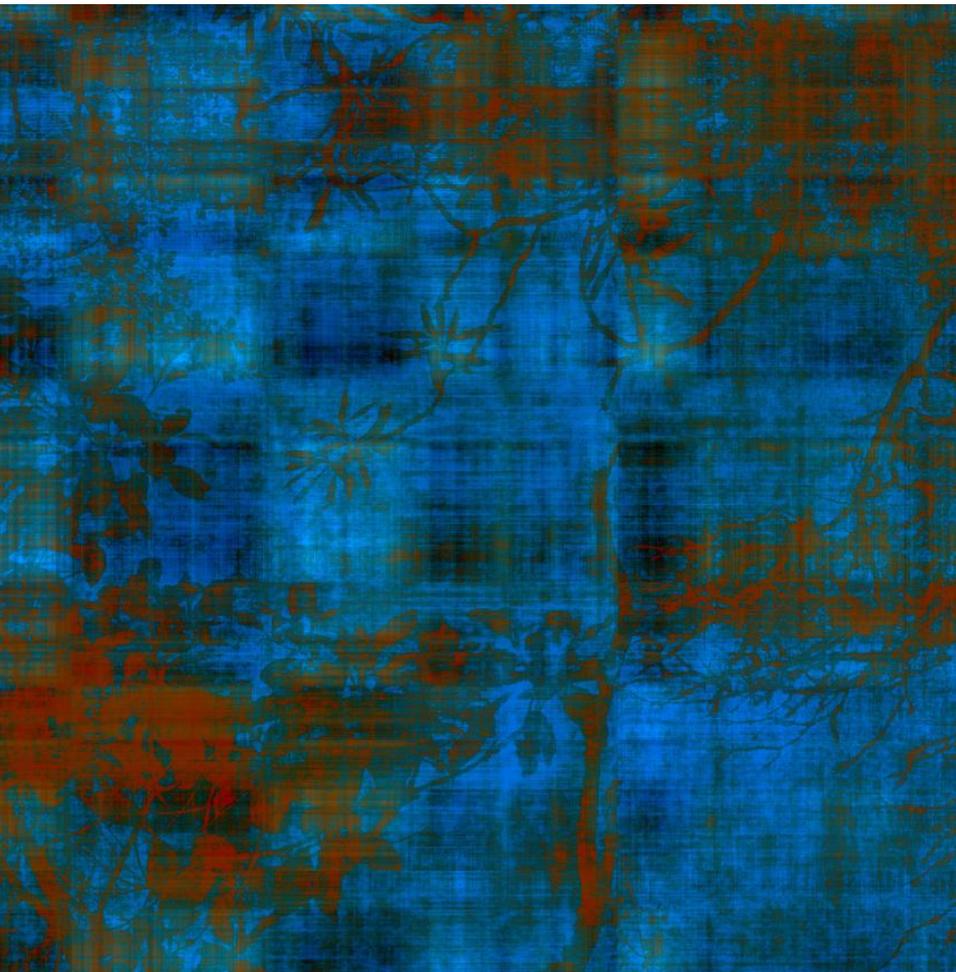
20 x 20 cm



Multicosm, 2022

Ink on Hahnemühle paper Torchon
100 of 15 x 15 cm

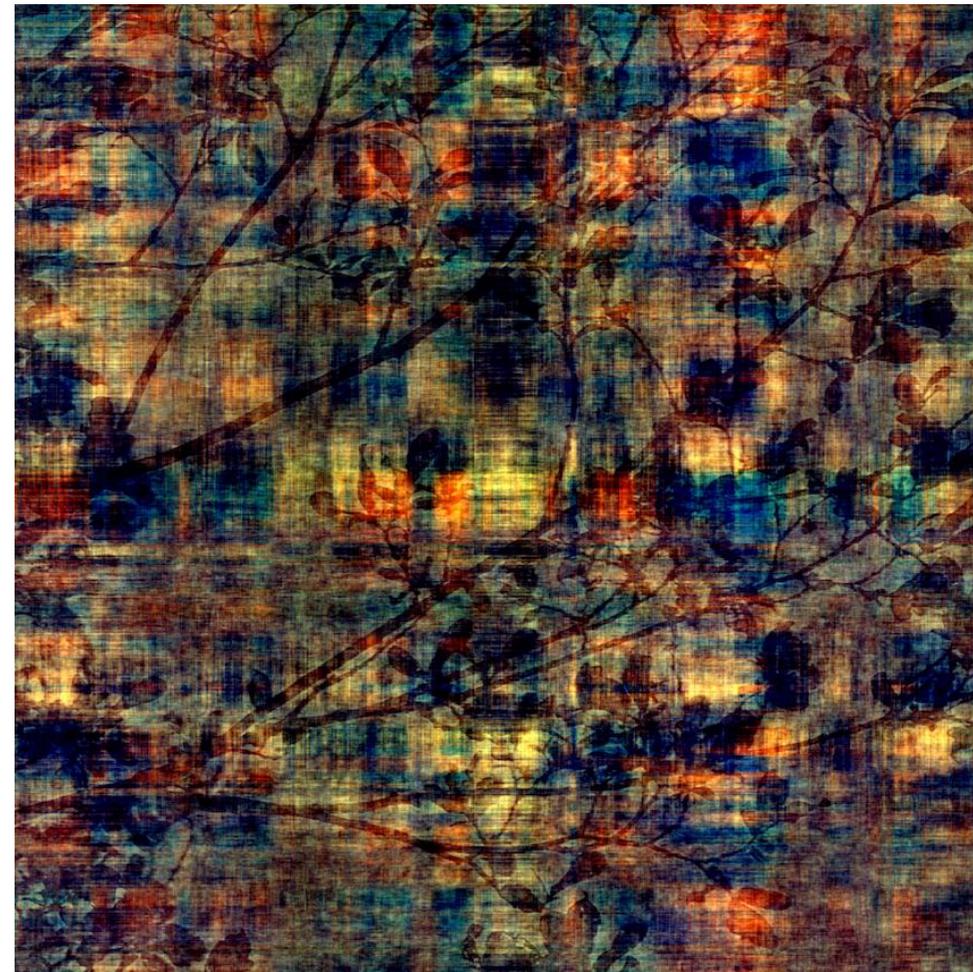




Isla, 2020

Ink on Hahnemühle paper Torchon

40 x 40 cm



Leaves 6, 2020

Ink on Hahnemühle paper Torchon

80 x 80 cm

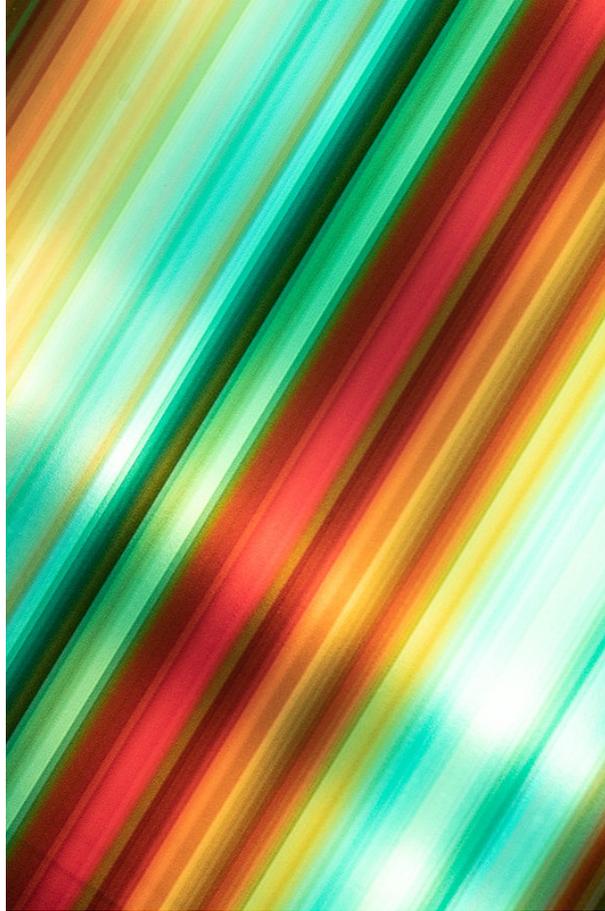
Windows

In order to retain the luminous quality of some works, without recourse to electronic screens, backlit transparent film provides an ideal medium. Multi-pane windows provide an excellent support for compositions which harness the natural light for illumination.



Sonic Lines, 2022

with Daniel Maszkowicz's Sonic Tree
Le Commun, Geneva

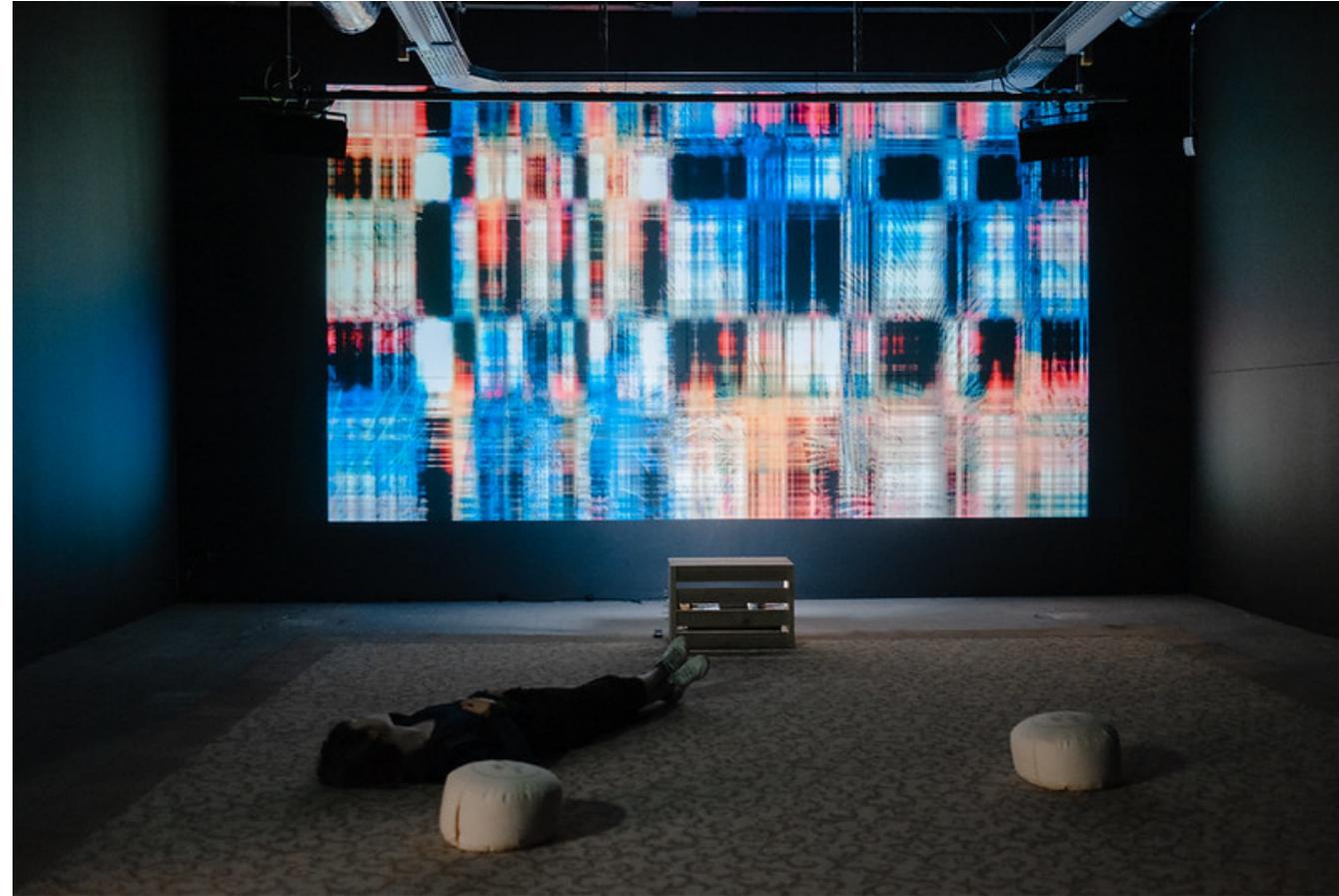


Sonic Lines, 2022
Le Commun, Geneva

AUDIOVISUAL AND MOVING IMAGES

LIVING STILL

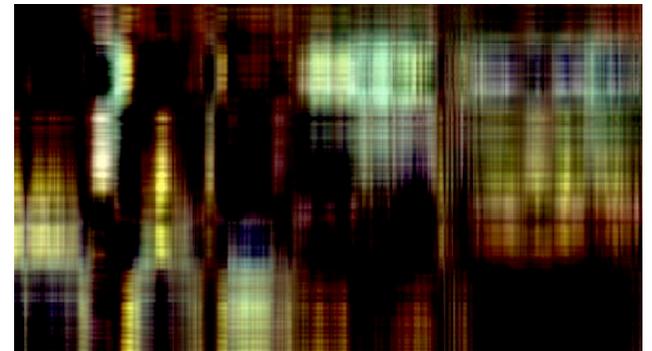
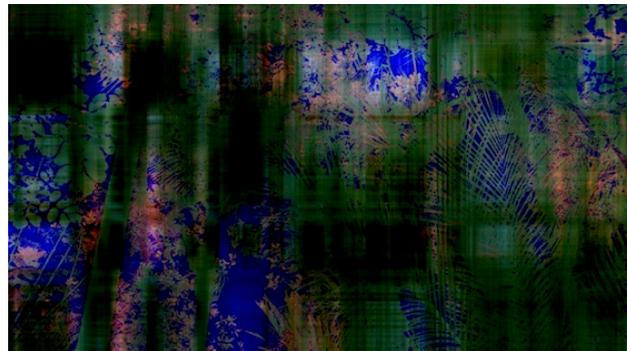
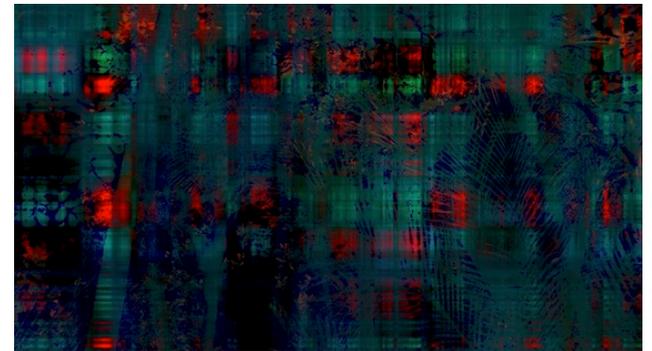
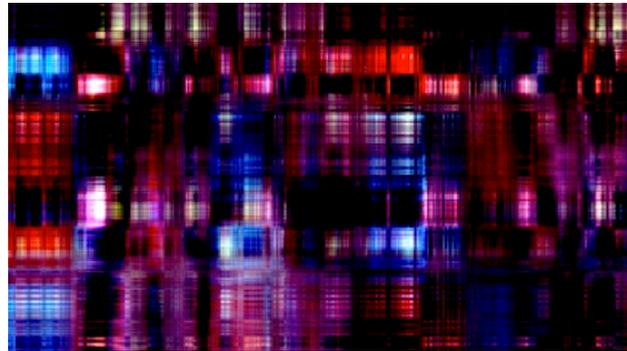
Our natural environment may seem to be static, but this is an artefact. In the real world, we experience constant variations and changes. Wind, light, the activity of living organisms and so forth all have an effect. The simple passage of time, the deterioration that it causes and the regeneration that it brings, are enough to give rise to such continuous changes. Playing on the term "still life", the Robert Turner Collective has developed the concept of "Living Still": a digital work which at first appears to be fixed, but which evolves slowly and constantly. On the one hand, the apparent immobility of a scene reflects the unstoppable and incessant flow of time and its regularity: when everything is still, only time moves. On the other hand, the evolution of a scene underscores the irreversibility of time and reveals its essential nature in what we call life.



Tāne's Garden, 2022

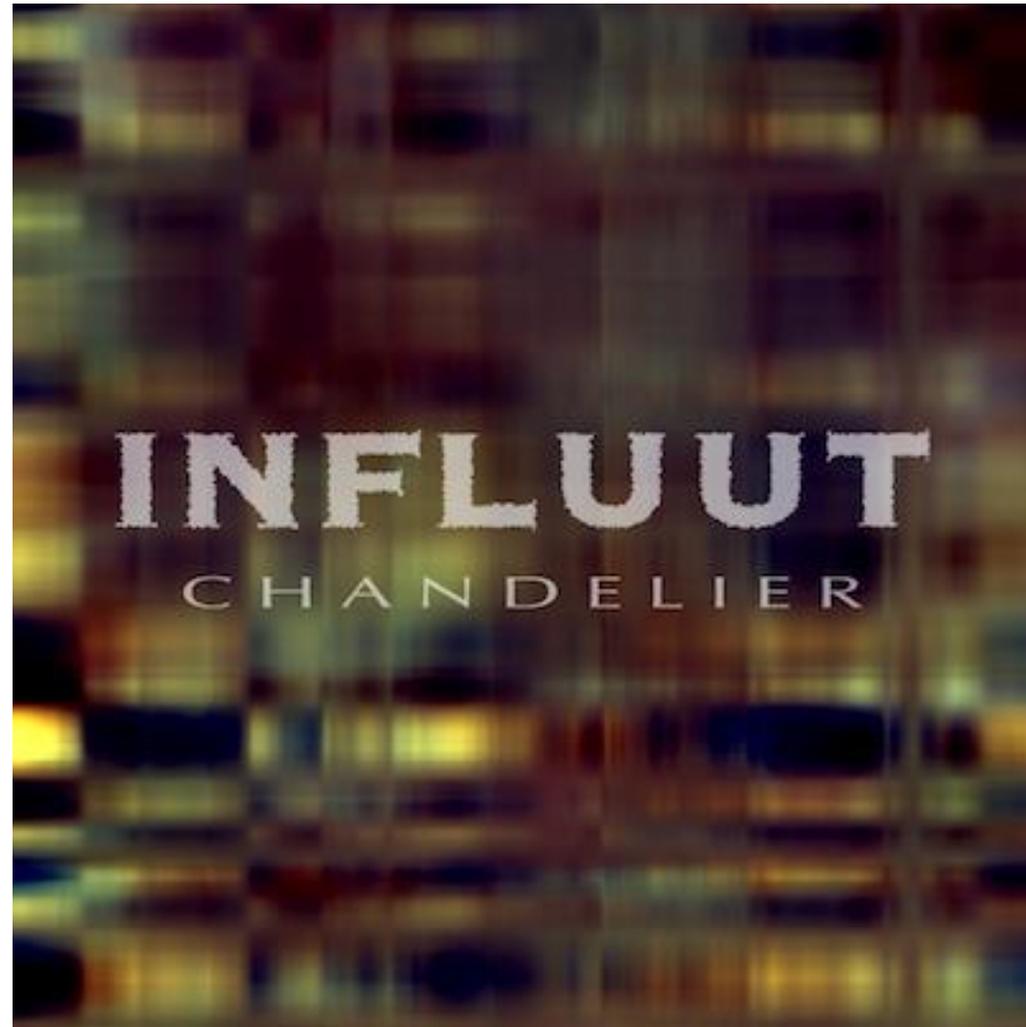
Living Still projection
Le Commun, Geneva

In this Living Still, Tāne, the god of the forest, observes the sky through the branches and leaves of the canopy, dreaming of a myriad of possible futures. The work is constructed from a single still image and is brought to life by the slow procession through different compositions which mingle to illustrate the intertwining of these myriads of futures. The surrounding space is to be thought of as a place of meditation and the projection is accompanied by a quadraphonic spatial sound diffusion.



Tāne's Garden
Living Still Projection
6 stills

A Living Still was created for the cover of INFLUUT's second album. The online version displays the Living Still itself while individual frames were used to create distinct album covers : each album in the release run has its own unique sleeve.



Cover for album Chandelier, 2021

Living Still frames

INSTALLATIONS

The techniques used on still images, in particular algorithmic abstraction, can be transferred to video and combined with other moving image methods. Working in collaboration with sound artists and musicians the Robert Turner Collective has created immersive audiovisual works, along with audiovisual sculptures.



Renaissance, 2022

with sound by INFLUUT

6 screen projection, quadriphonic sound

Le Commun, Geneva

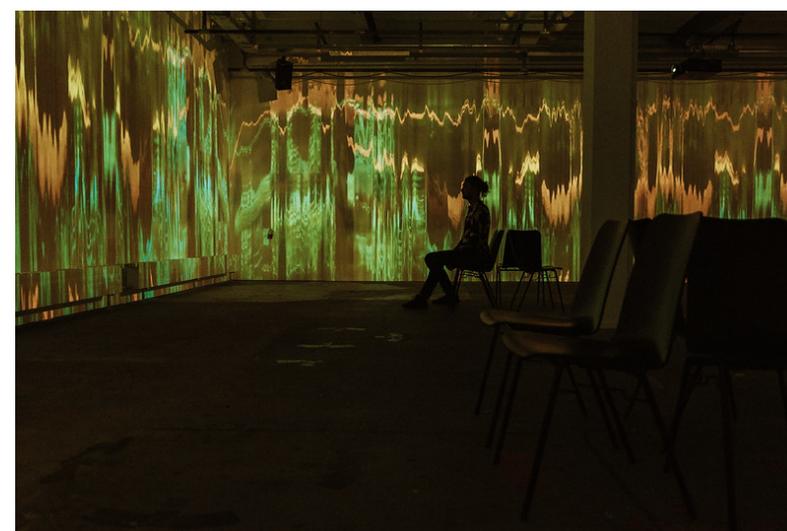
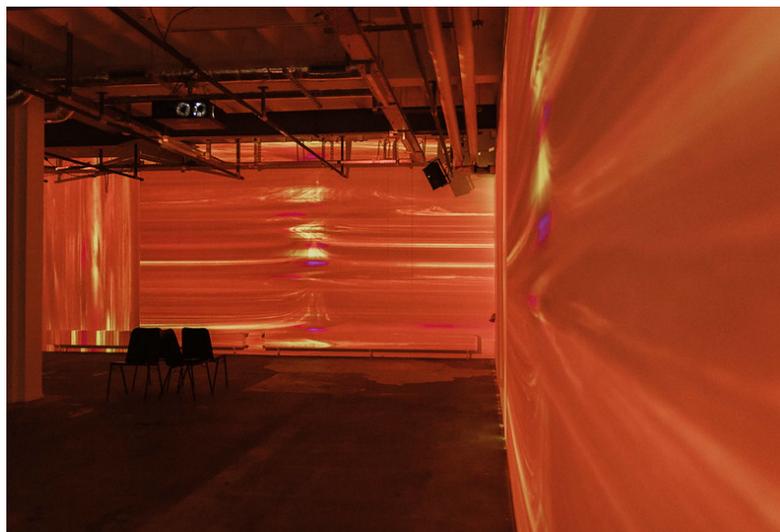
Renaissance is an immersive audio-visual work involving six moving-image projections that interact with a hybrid sound composition. The visual display includes audio-reactive images, in which sound influences the different algorithms used in their creation. Algorithmic abstraction and other techniques allow for the creation of a graphic universe that enhances and complements the atmosphere of the immersive experience. The original sound composition by the duo INFLUUT comprises human-produced sounds using objects and instruments, which are pre-recorded, processed and played according to decision loops based on harmony rules.

Renaissance, 2022

with sound by INFLUUT

6 screen projection, quadriphonic sound

Le Commun, Geneva



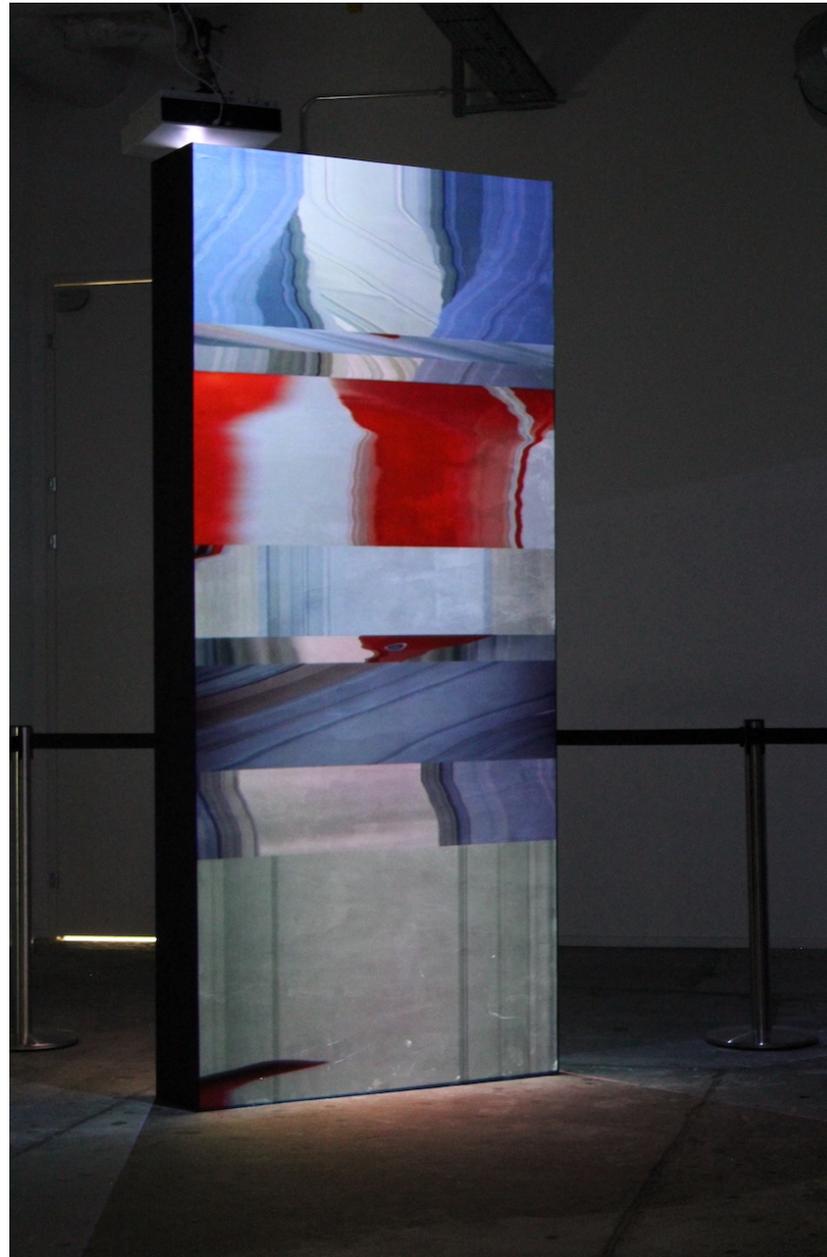
A digital image is a 2-dimensional rectangular array of colours and a movie can be thought of as a sequence of images in a 3-dimensional array: individual frames are strung out along a time axis to fill a solid slab of pixels. By putting time and space on an equal footing, we may interchange a space axis with time, creating a new version of the original clip. These moving works are further developed by applying algorithmic abstraction to create new hybrid realities in motion.

An example of this method is a work created for the exhibition Renaissance (Le Commun, Genève, 2022), which consists of a 2.5 metre high monolith with projections on the two large faces. A time-slab of pixels has been rotated in space-time.

space | time | space, 2022

Installation and projection

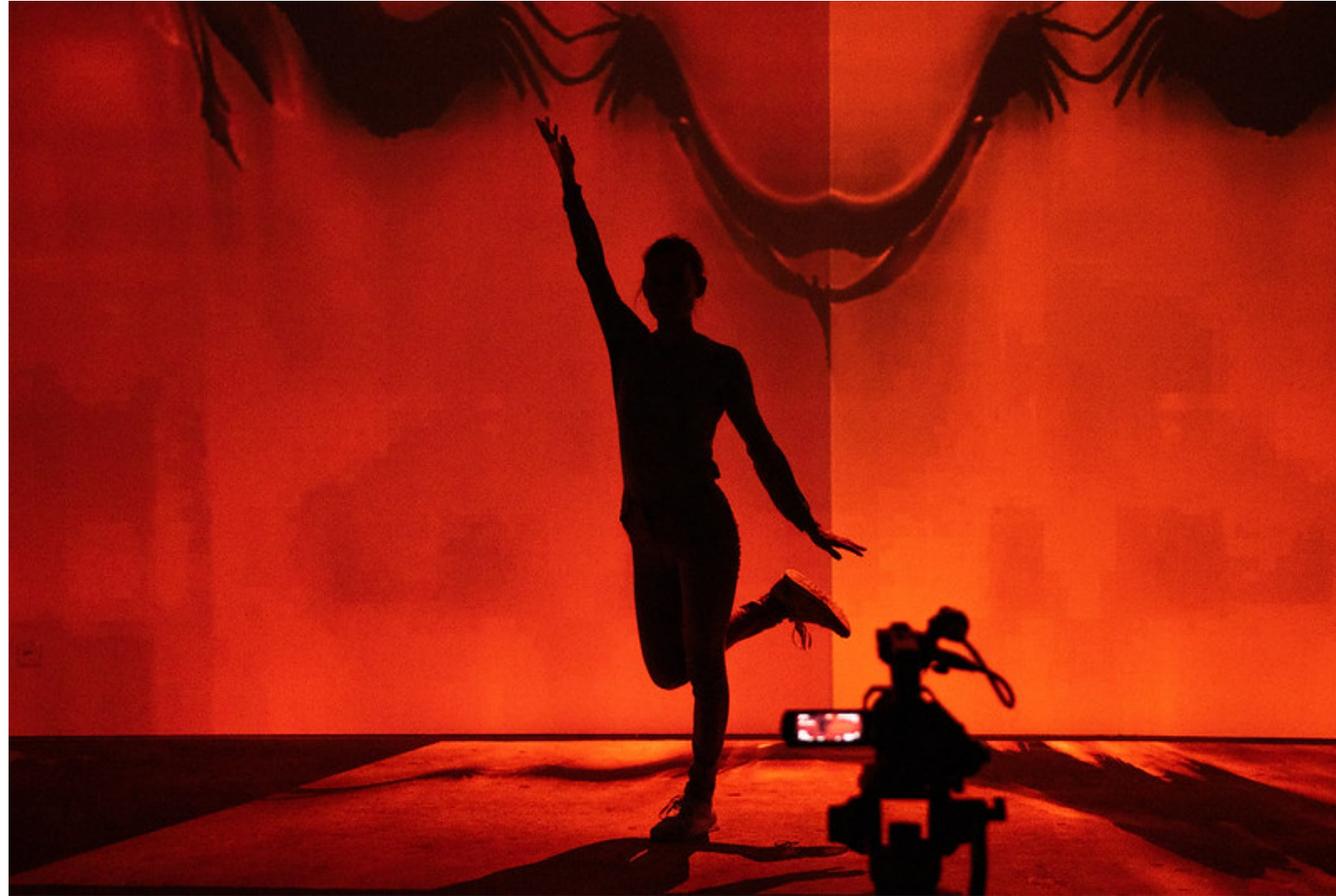
Monolith of size 250 x 111 x 28 cm



PERFORMANCES

DANCE

The Collective has collaborated with dancers providing moving images to be woven into the fabric of the choreography. Sometimes this involves improvisation in which prepared video sequences are mixed in real time.



Les Vagues, 2022

Lucie Eidenbenz

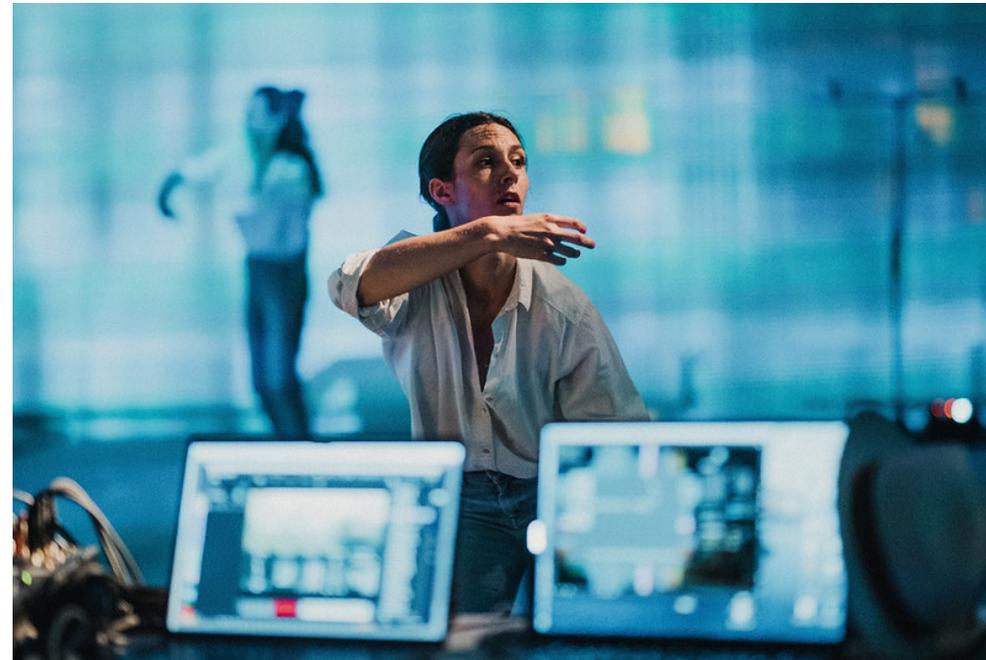


Les Vagues, 2022

Lucie Eidenbenz with the Robert Turner Collective and Daniel Maszkowicz



Rencontre avec des algorithmes mi-humains, 2022
Collectif InCorpore with the Robert Turner Collective





SISMES, 2022

Marion Baeriswyl and D.C.P.

with Living Still scene by the Robert Turner Collective

SOUND

Music and sound art provide fertile ground for collaboration. The Robert Turner Collective has teamed up many times with In-fluut, the electroacoustic, post-jazz, sound collaboration between Nat Cilia and Daniel Maszkowicz. The Collective developed a way of modifying the Algorithmic Abstraction of an image in real-time based on an audio input signal. By mixing this live with other video clips, the Collective creates a visual atmosphere to accompany musical performance.



Chandelier, 2019

INFLUUT and the Robert Turner Collective
Sputnik, Geneva



Guia Fest!, 2021

Macau

INFLUUT and the Robert Turner Collective (virtually)

with the Guia Experimental Band (live)



Rencontre avec des algorithmes mi-humains, 2022
Collectif InCorpore with the Robert Turner Collective

CV - ROBERT TURNER COLLECTIVE

The Robert Turner Collective is an artistic collaboration founded in Geneva in 2019 by Louis-Hadrien Robert and Paul Turner.

Robert

Turner

Doctorate
 Researcher, CNRS, Strasbourg
 Researcher, Max Planck Institute, Bonn; Juniorprofessor, Hamburg
 |
 Researcher, NCCR Swissmap, Université de Genève
 |
 Researcher, University of Luxembourg
 Maître de conférence, Université Clermont Auvergne

1994 Doctoral thesis
 1995 Alexander von Humboldt Fellow, Universität Heidelberg
 1996 Max Planck Fellow, Bonn
 1997 Lecturer in Mathematics, University of Aberdeen, Scotland
 1998 |
 1999 |
 2000 Lecturer, Heriot Watt University, Edinburgh
 2001 |
 2002 |
 2003 |
 2004 |
 2005 Marie Curie Fellow, CNRS, Strasbourg
 2006 |
 2007 Lecturer, Heriot Watt University, Edinburgh
 2008 |
 2009 Chargé de Cours, Fribourg
 2010 Chargé de Cours, EPFL
 2011 Chargé de Cours, Université de Genève
 2012 |
 2013 |
 2014 Author, interactive book Mathema, FNS project
 2015 |
 2016 Professeur de mathématiques, Institut Florimont
 2017 Science writer, NCCR SwissMAP
 2018 |
 2019 |
 2020 |
 2021 Co-founder of Association Blue Square
 2022 |

Events

- 2022 Les Vagues, dance performance with Lucie Eidenbenz and Daniel Maszkowicz (sound), Le Commun, Geneva
- 2022 Improvisation, sound, music and movement performance with Collectif InCorpore, Le Commun, Geneva
- 2022 Simes, Marion Baeriswyl and D.C.P, Le Commun, Geneva
- 2022 Le Commun — Renaissance, audio-visual installations; collaboration with Daniel Maszkowicz and Nat Cilia
- 2022 Association Blue Square — exhibition at Espace Témoin with Claude Cortinovic, Virginie Delannoy, Noemie Doge and Carmen Perrin
- 2021 Fête de la musique, concert at Zoo (Usine) with Inlluut
- 2021 Guia Fest! Macau — virtual performance projection of a visual symphony with Inlluut
- 2020 Kolonia Artystów, Gdańsk — livestream performance with Daniel Maszkowicz et Nat Cilia (Spoutnik, Genève)
- 2020 Ars Electronica Global Gallery, selected work "The unforgettable sound of forgotten freedom"
- 2019 Espace Forde — exhibition Pohutukawa in dé | re | composition, with Sonic Tree (Daniel Maszkowicz)

Qualifications

- 2013 (Louis-Hadrien Robert) Doctorat, *Sur l'homologie sl_3 des enchevêtrements; algèbres de Khovanov–Kuperberg*, Université Paris 7
- 2009 (Paul Turner) Habilitationsschrift, *Khovanov Homology*, Université de Fribourg
- 1993 (Paul Turner) PhD, *On the homology of certain Infinite Loop spaces*, University of Manchester

Publications

50+ mathematics research publications. Selection :

- M. Khovanov and L-H. Robert, Foam evaluation and Kronheimer-Mrowka theories, *Advances in Mathematics*, 376 (2021), Paper No. 107433, 59 pp.
- P. Chervet, R. Grappe, and L-H. Robert, Box-total dual integrality, box-integrality, and equimodular matrices. *Mathematical Programming Series A*, 188 (2021), no. 1, 319–349.
- L-H. Robert and E. Wagner, Symmetric Khovanov-Rozansky link homologies. *Journal de l'École Polytechnique Mathématiques* 7 (2020), 573–651.
- C. Gille and L-H. Robert, A signature invariant for knotted Klein graphs. *Algebraic and Geometric Topology* 18 (2018), no. 6, 3719–3747.
- L-H. Robert, Grothendieck groups of the Khovanov-Kuperberg algebras. *Journal of Knot Theory and its Ramifications* 24 (2015), no. 14, 1550070, 25 pp.
- P. Turner, *A hitchhiker's guide to Khovanov homology*. In *Lectures on Quantum Topology in dimension three*, T. Le, C. Lescop, R. Lipshitz, P. Turner, Panoramas et Synthèses, No 48 (2016), Société Mathématiques de France.
- B. Everitt and P. Turner, *The homotopy theory of Khovanov homology*. *Algebraic and Geometric Topology* 14 (2014) 2747-2781.
- V. Turaev and P. Turner, *Unoriented topological quantum field theory and link homology*. *Algebraic and Geometric Topology* 6(2006), 1069 - 1093.
- U. Bunke, P. Turner and S. Willerton, *Gerbes and homotopy quantum field theories*, *Algebraic and Geometric Topology* 4, (2004), 407 - 437.
- J.R. Hunton and P. Turner, *The homology of spaces representing exact pairs of homotopy functors*, *Topology* Vol. 38, No. 3 (1999), 621 - 634.

PHOTO CREDITS

Dorota Grajewska

Robert Turner Collective

