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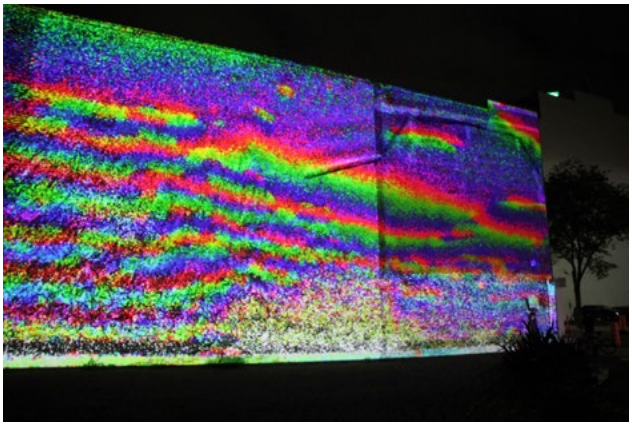


ÉCRAN DE VEILLE / SCREEN SAVOUR

A self-surveilling generative feedback installation by Sam Meech

Sound design by Tom Rea Smith

size: variable (default: 1920 x 1080)
loop time : variable (default: 20 mins)

presented @ métro St Laurent, Montreal Sept 2022

http://portfolio.smeech.co.uk/ecrandeveille/

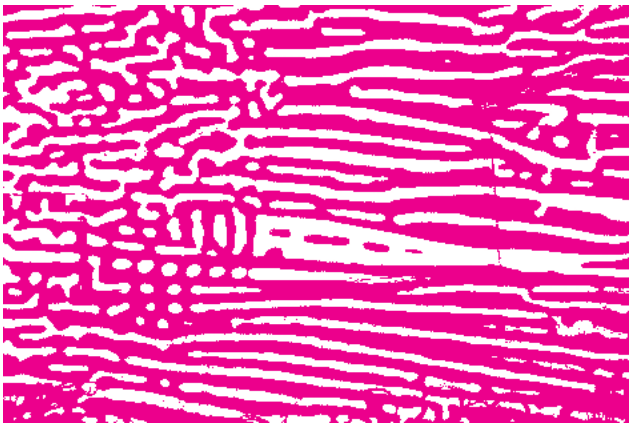
SUMMARY

ÉCRAN DE VEILLE / SCREEN SAVOUR is a self-surveilling generative projection that twists our understanding of the 'idle' screen space, and explores the potential of optical feedback systems as playful interfaces on a grand scale.

The work is self-generating but also highly sensitive to small changes in the environment and user interaction. The patterns can easily be manipulated by users, like ripples in water.

These scenes are intercut by several 'desktop documentaries' in which we surveil an unknow user as they sort through an absurd collection of research on feedback systems and related phenonmena.

The mechanics of feedback loops are not just pretty patterns, they are also explored in the fields of chaos theory[1], morphogenesis[2] and even cognitive science[3].



1. Crutchfield, James. P. (1984) 'Space-Time Dynamics in Video Feedback'. Physica vol. 100

2. 'Secret Life of Chaos' (2009) documentary) BBC www.dailymotion.com/video/xv1j0n (note 35mins 00sec)

3. Hofstadter, D. (2007) 'I am a Strange Loop', Basic Books

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OUTLINE - GENERATIVE SCENES

Five generative scenes each present a different form of live video feedback. They evoke shimmering sands, cellular automata, cerebral networks and the first ever use of video feedback for the titles of Doctor Who (1963)

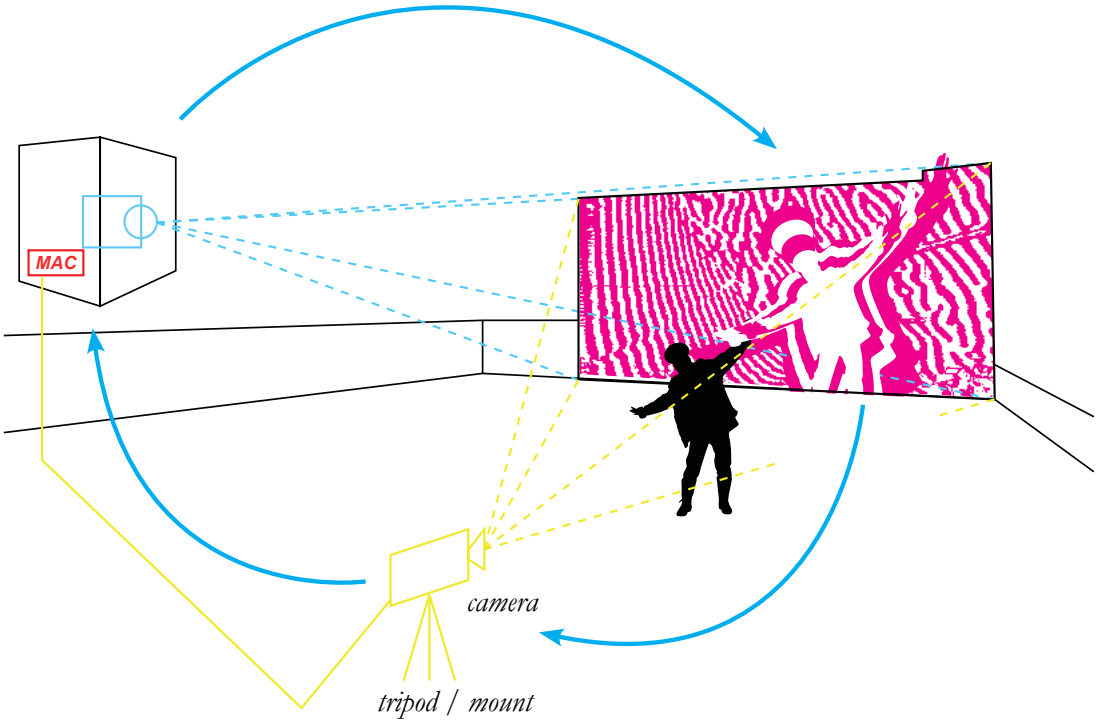
A camera pointed at the projection surface captures a live video image. This is then mapped back onto the projection facade, creating an optical feedback loop.

Any interruption of the projection or camera view causes ripples in the feedback loop. People walking infront of the projection create organic visual echoes.

The video signal is digitally processed (mac, Isadora software) enabling changes to light, colour, position and scale. Each change affects the emergent patterns.

The work also employs a generative and reactive sound design by Tom Rea Smith, which is in turn affected by changes in the visual behaviour of the installation and camera tracking of passers by.

'shimmer' scene - generates patterns like sand dunes



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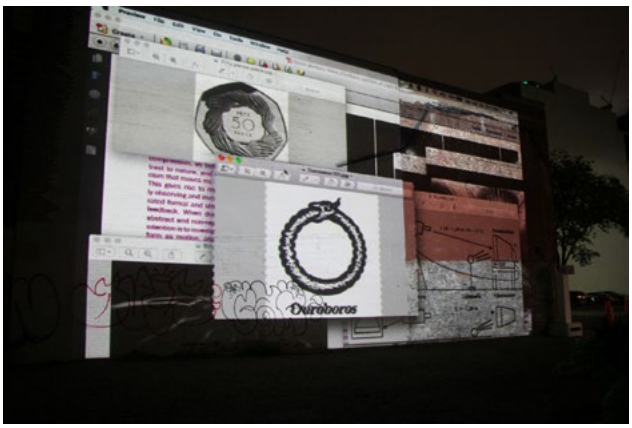
OUTLINE - DESKTOP DOCUMENTARIES

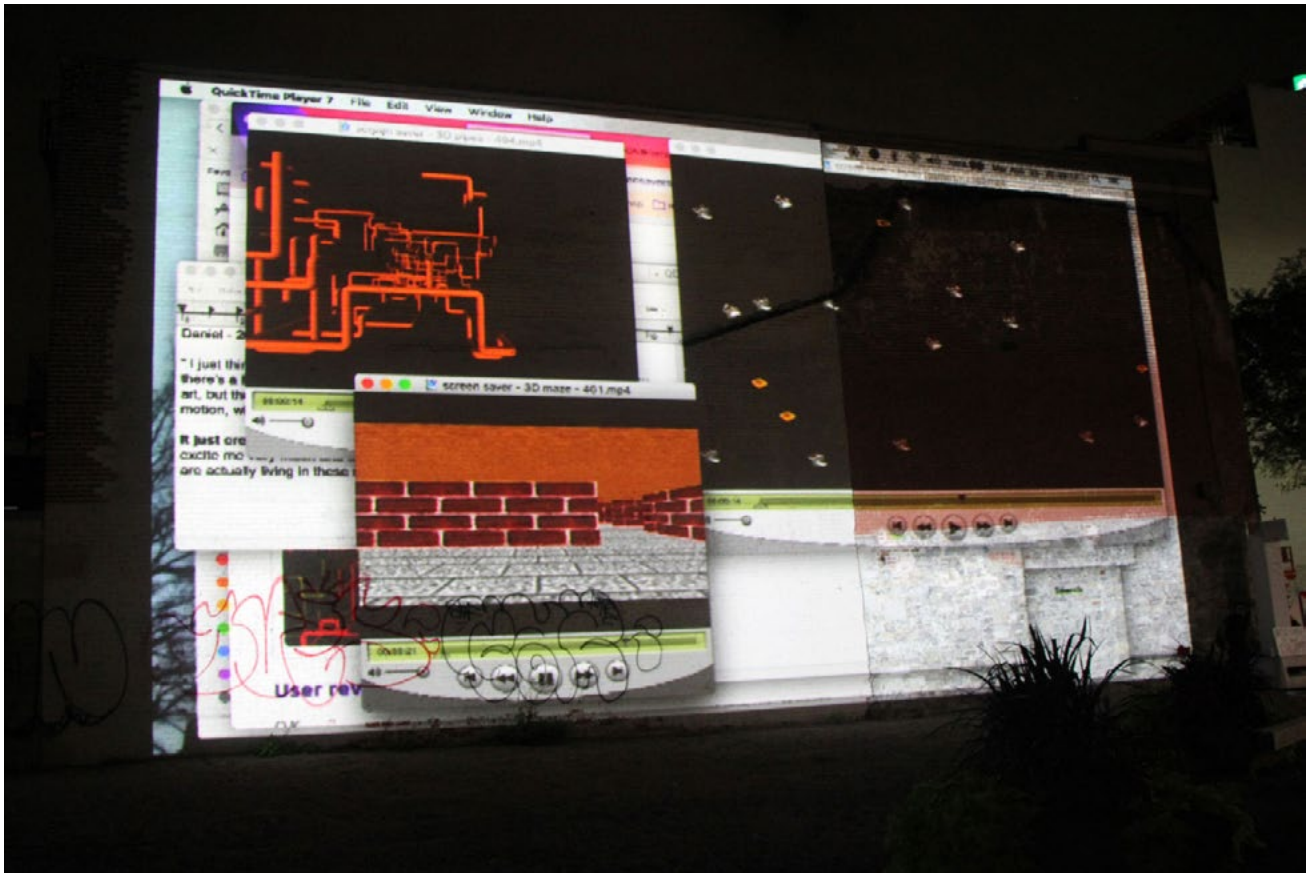
The 'screen savers' are interrupted by several micro-documentaries that play with our understanding of who is controlling the screen.

Five short scenes appear to show a remote computer desktop, as the user navigates though a bizarre collection of research: texts on chaos theory and 'strange loops', images of geckos shedding skin and snakes eating their tails, jigsaws of jigsaws of jigsaws, and even a live feed of the projection site ítself.

Does this person know we can see their screen? Or perhaps they can see us? Who is watching who? Is this whole installation simply a giant desktop screen saver?



'desktop documentary' scene 1 - looking for loops



'desktop documentary' scene 5 - a collection of classic screen savers

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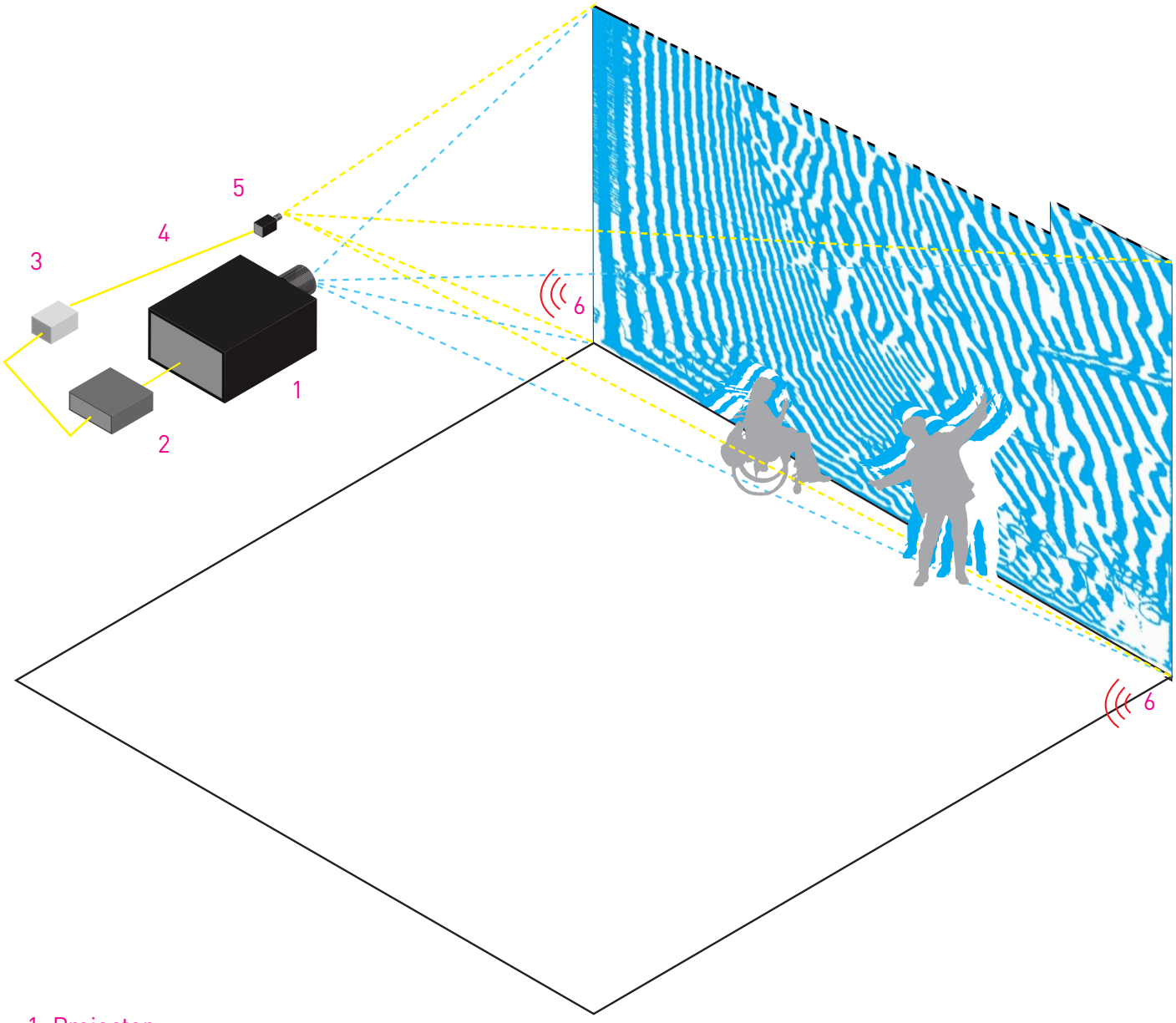
TECHNICAL DIAGRAM v1

METRO ST LAURENT SETUP (SEPT 2022) - CAMERA IN PROJECTOR CABINET



1. Projector
2. Mac Mini (Isadora software)
3. ADVC (analogue digital converter)
4. BNC cable (12V power, video signal)
5. CCTV camera
6. Speakers

note: due to the restrictions of the site at métro St Laurent, this was the necessary configuration. However, the placement of the camera in the projection booth limited the opportunity for interaction with the image. Future installations should aim to place the camera opposite the screen, at an accessible height.

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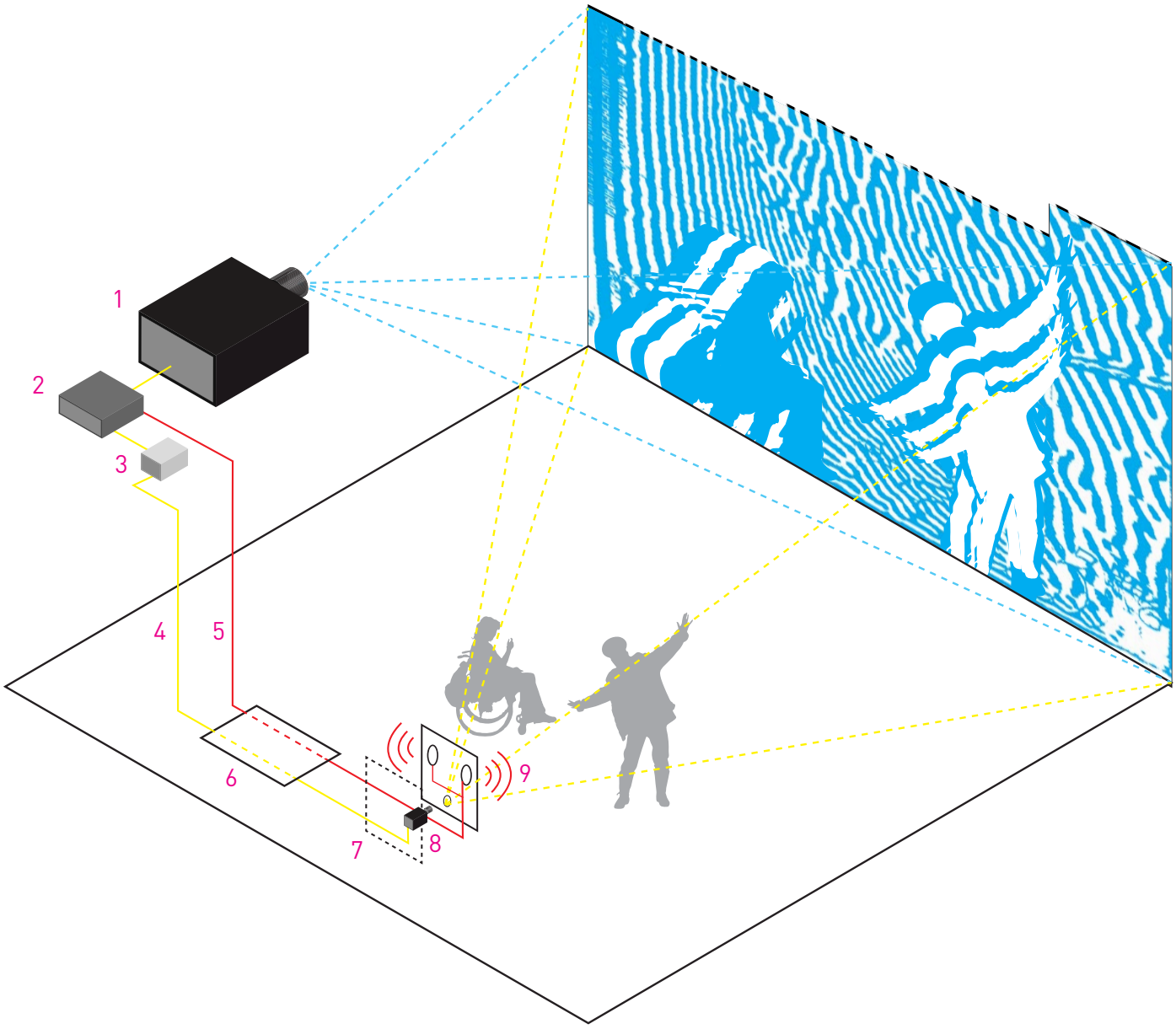
TECHNICAL DIAGRAM v2

IDEAL SETUP - CAMERA FRONT AND CENTRE - 1m HEIGHT



1. Projector
2. Mac Mini (Isadora software)
3. ADVC (analogue digital converter)
4. BNC & SDI cable (12V power, video signal)
5. Audio cable
6. Cable panel / trough
7. Camera housing / cabinet
8. CCTV camera
9. Speakers

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SCHEMATIC DIAGRAM

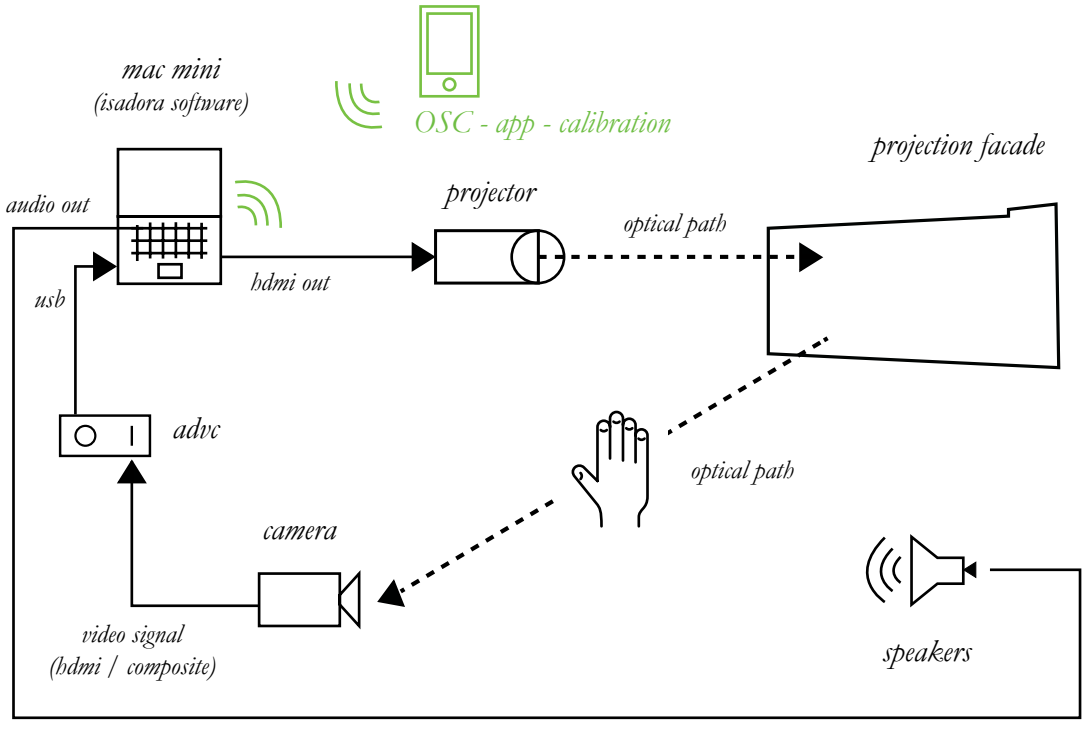
Basic schematic diagram showing arrangement of hardware

BASIC HARDWARE:

Mac Mini with Isadora software - 16gb ram, i7, SSD, Isaodora v.3.1
Monitor - 16:9
ADVC (analogue digital video convertor) - Blackmagic utrastudio mini recorder (SDI input)
Video camera - CCTV camera - HD SDI output
Tripod / magic arm / clamp - for camera mount
Housing for camera - HD SDI output
SDI video cable - main video signal)
BNC siameser cable - carrying 12V power to camera, monitor video signal)
Speakers - preferred but optional

Notes:

- OSC (Open Sound Countrol) can be used as on-site wireless calibration
- Splashtop remote desktop can be implemented on mac for remote calibration / troubleshooting



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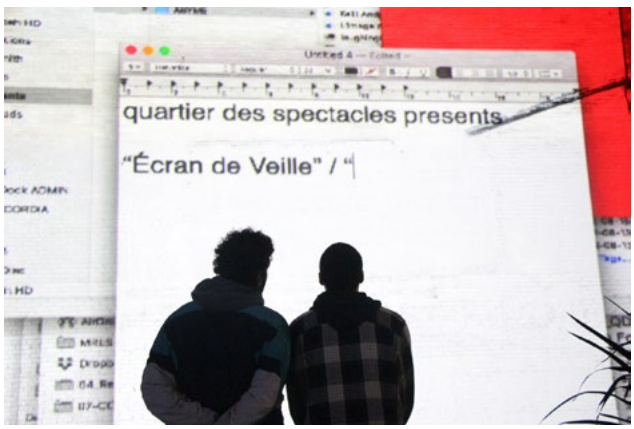
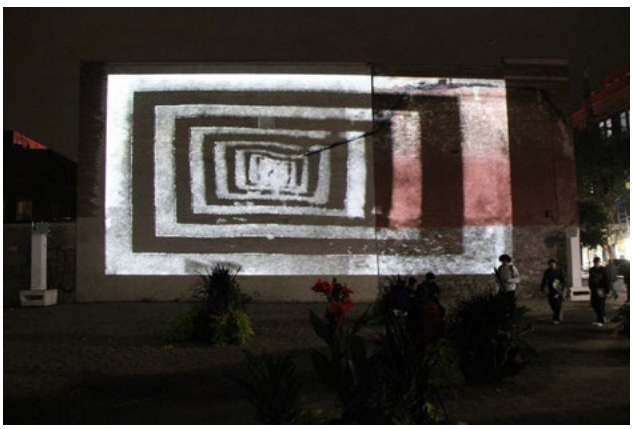
DOCUMENTATION IMAGES 2022

VIDEO DOCUMENTATION:
https://vimeo.com/743255741

photo documentation of final installation, Metro St Laurent, Aug - Sept 2022





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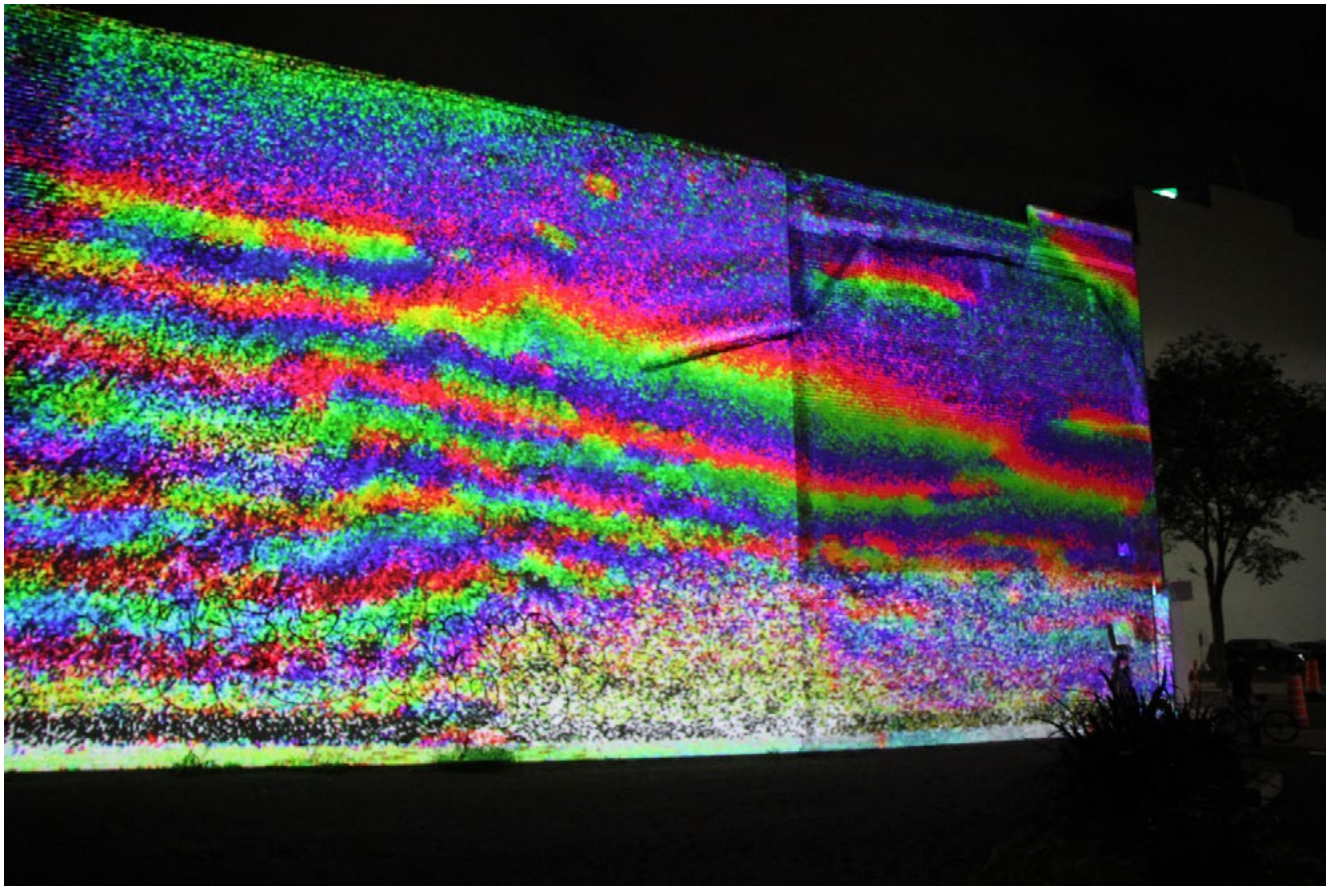

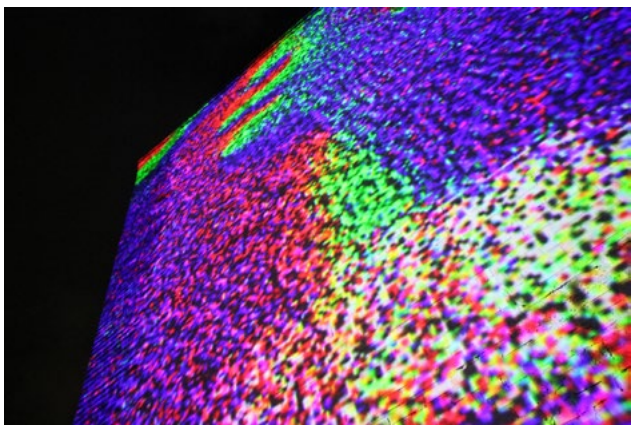

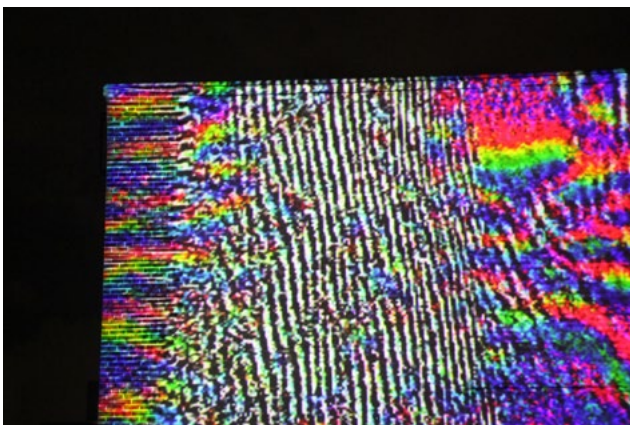

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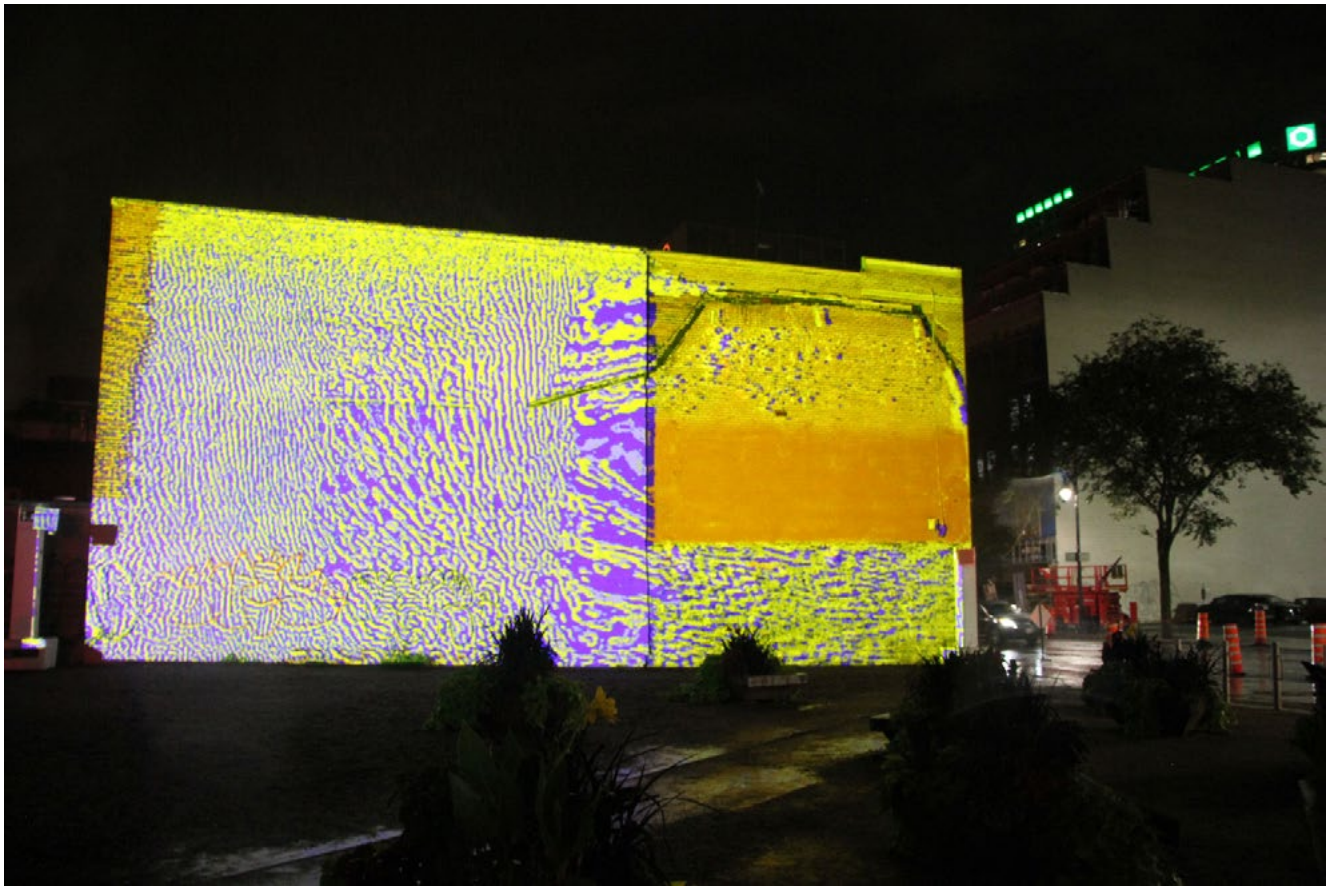

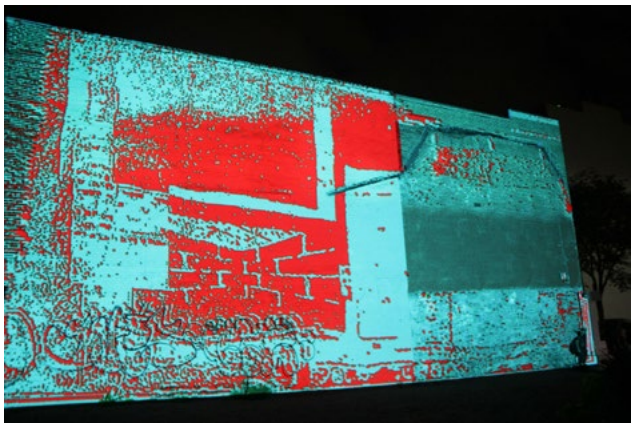

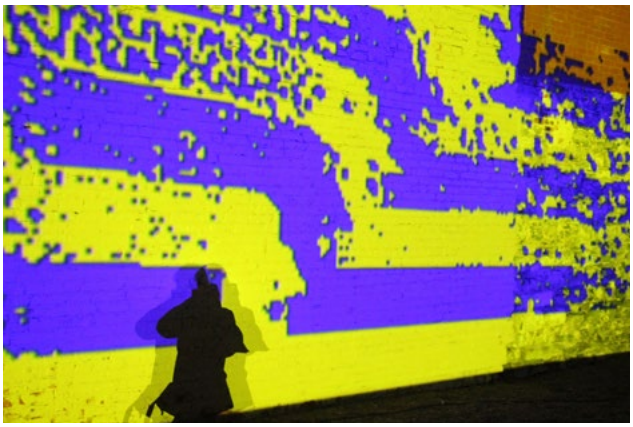

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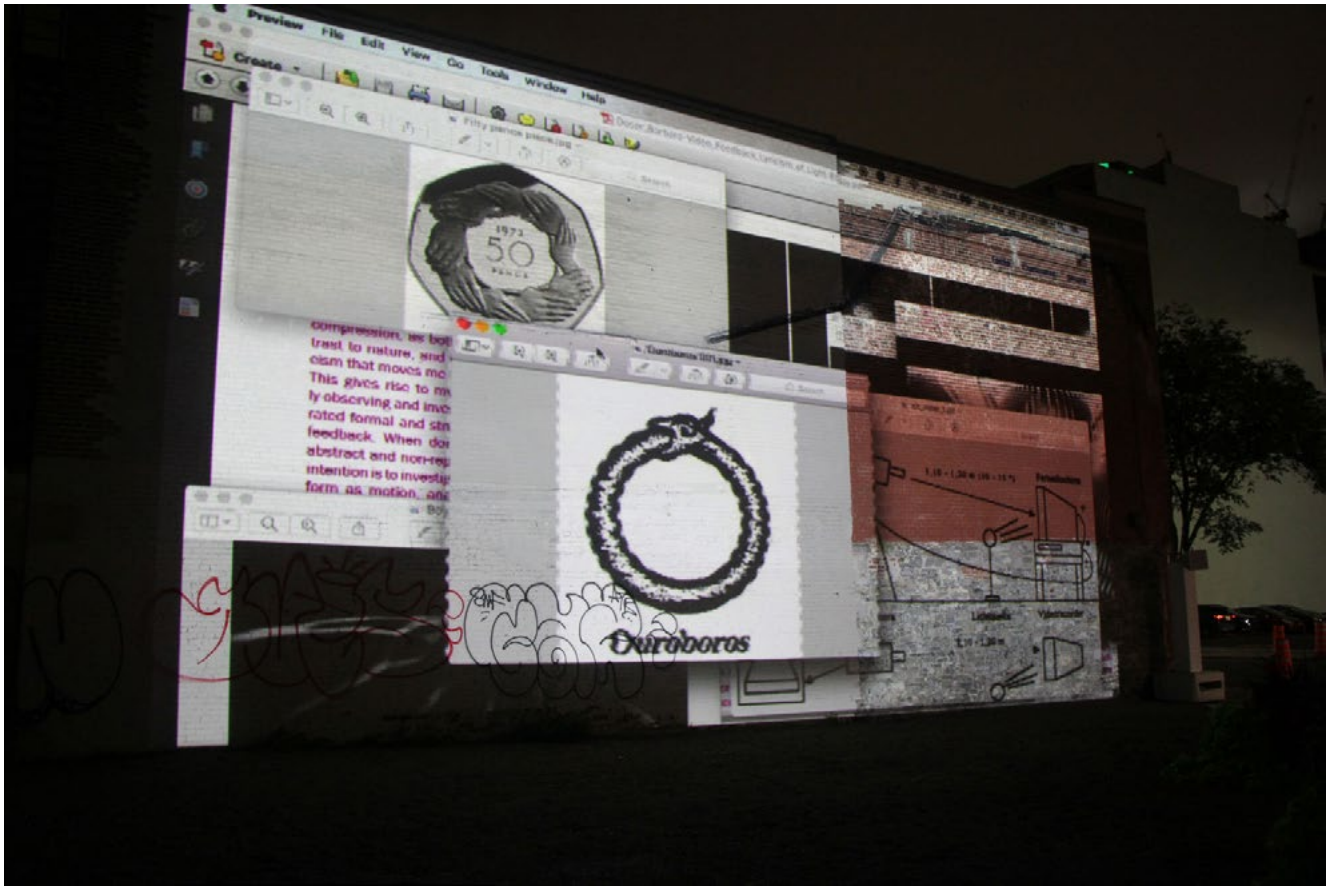

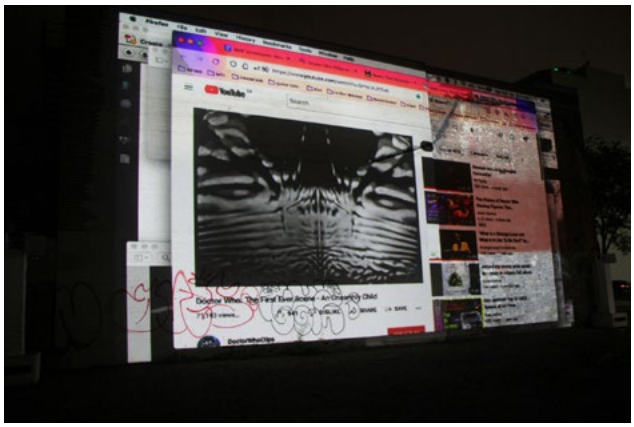

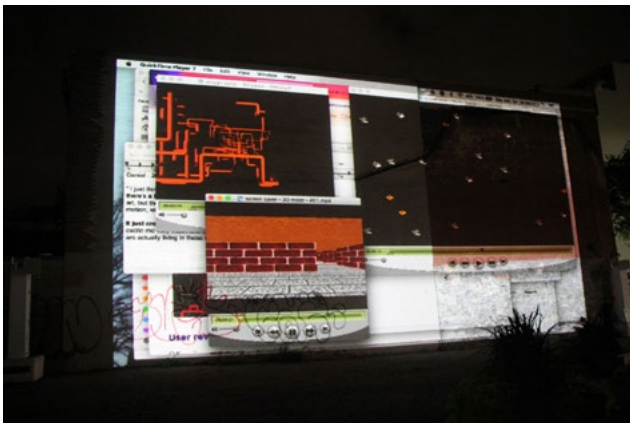

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TEST IMAGES - 2020

TEST VIDEO DOCUMENTATION:
https://vimeo.com/405691335 - password 'feedback'

photo documentation of tests, Metro St Laurent, 4th & 18th March 2020
more images at https://www.flickr.com/photos/39554118@N08/albums/72157713371701182

'shimmer' - a camera pointed at the screen creates the feedback loop, and defines a space for interaction

the feedback ripples encourage choreography

'text' - digita; / graphic elements can easily be incorporated

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red / yellow 'invert threshold' - complex patterns form organically like zebra stripes

users can see themselves reflected in the image

movement creates ripples in the pattern

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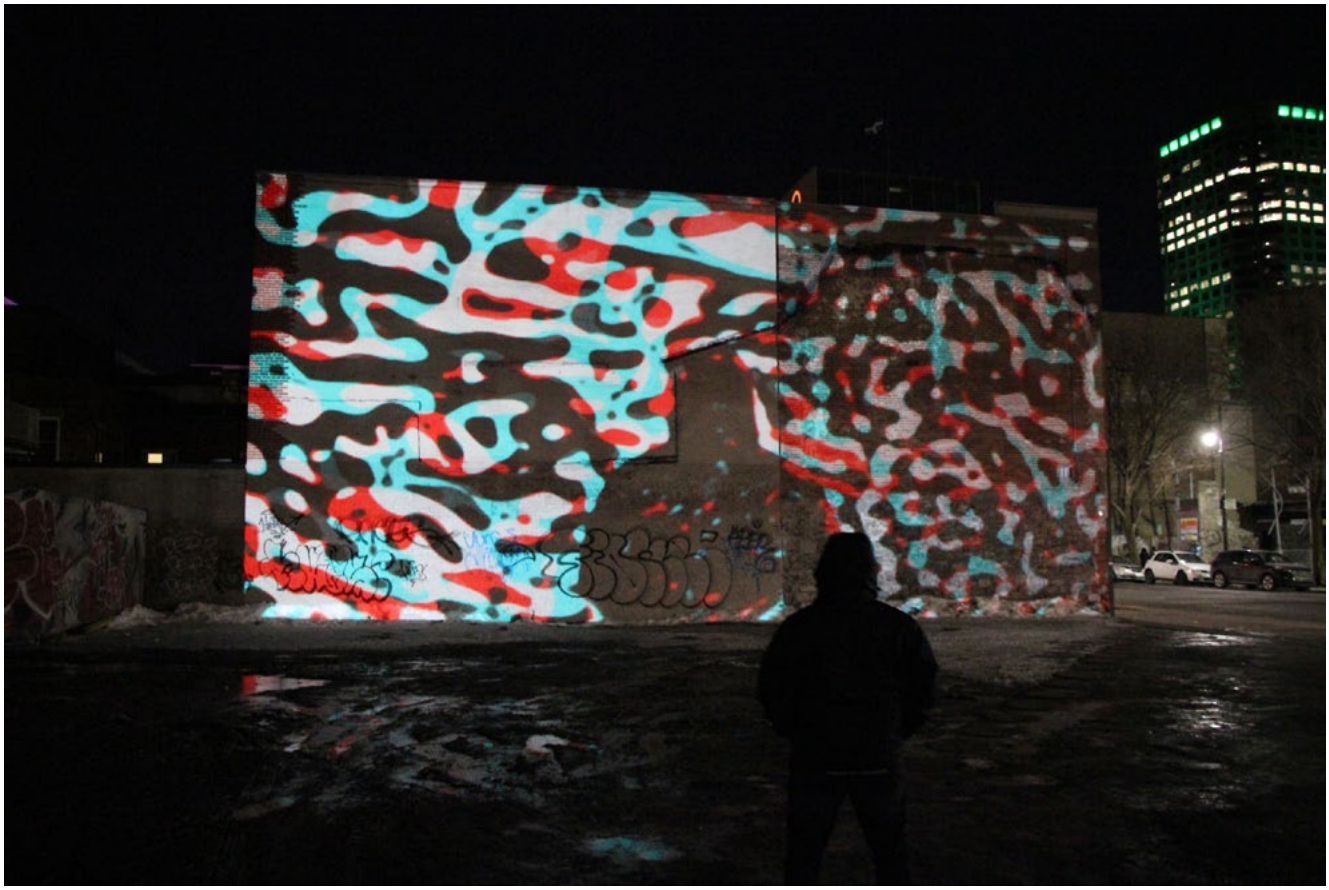

'anaglyph' - small changes in calibration dramatically alter the patterns

even ambient lighting affects the pattern

Frédéric stood infront of the camera

ARTIST PROFILES

SAM MEECH

Sam is a multidisciplinary artist and educator with almost 20 years experience creating digital arts commissions. He has developed community cinemas, large scale collaborative textile installations in libraries, and interactive projection design for theatre, opera and the public realm.

He has developed commissions for Quartiers des Spectacle, National Film Board of Canada, Maisons de la Culture Montreal, Fact Gallery Liverpool, Open Data Institute, Signal Films, BBC Big Screens, Quays Culture

His works have been shortlisted for the Lumen Prize for Art & Technology (2019). He also won the ALife 'Inspired Art' award in 2020.

He has exhibited at Tate Exchange, Somerset House, Kunsthal Extra City (Antwerp), Bienniale International Design (St Etienne), HKW (Berlin), Newlyn Gallery (Cornwall) and the International Anthony Burgess Foundation, UK among others.

He is currently based in Montreal, Canada where he works as the Technical Coordinator at Vidéographe

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TOM REA SMITH

Tom is an artist, composer and live sound technician. He has worked with Sam providing sound design on previous projects, including performances, installations, animations and short films. He also ran the 'Depressed Artists Support Bureau' as part of Dadafest International 2018.