



MemoRekall

www.memorekall.com - contact@memorekall.com

DH2023 Conference Graz, Austria
Wednesday 12th July, 11:00 – 12:30

From MemoRekall to MemoRekall-IIIF **Developing a video annotation web application** **in the context of citizen science co-creation practices**

Clarisse BARDIOT, David ROUQUET, Jacob HART, Alexandre MICHAAN, Irénée BLIN, Mei MENASSEL,
Sébastien HILDEBRAND, Stefania FERRANDO, Cosetta GRAFFIONE, Daniele MARRANCA



#1 Introduction

FICHE TECHNIQUE

© Adrien M & Claire B

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[link](#)

PARTITION

Storyboard dessiné par Claire Bardainne servant également de conduite pour les répétitions. Décembre 2013, mis à jour en 2014

© Claire Bardain...

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DOSSIER DE PRÉSENTATION

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Représentation de Hakanai à l'espace Lino Ventura. Garges-lès-Gonesse, février 2016

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DISPOSITIF- MAQUETTE 3D

Maquette en 3D de la scénographie. 2012

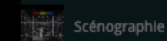
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Scénographie



Scénographie



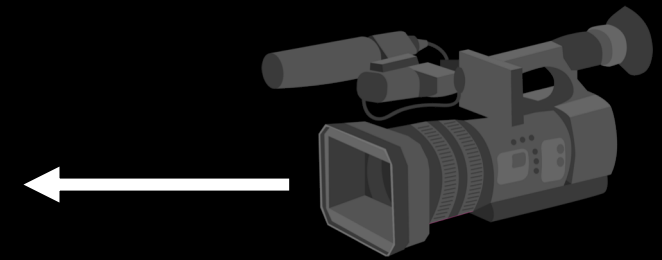
Scénographie

fin de la représentation

Recording

I would like to **preserve** or **document** a performance, a creative process, a phenomenon that takes place in time...

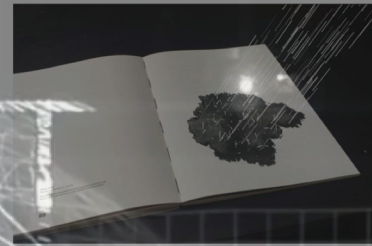
I film the process and make a **video**



I stock my video online



un livre pop-up augmenté et une expérience en réalité virtuelle.
2019

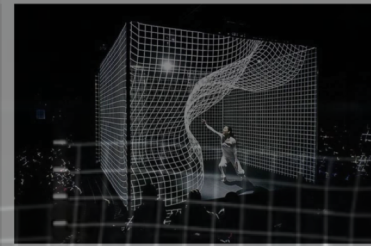


La neige n'a pas de sens

ÉDITION

Un livre monographique, qui offre une série de dessins en réalité augmentée.
2016

d'entreprise martell à Cognac.
2018

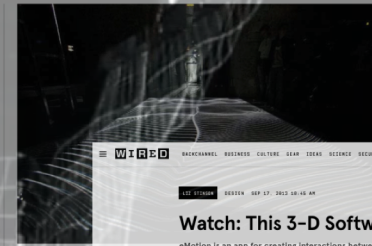


Hakanaï

SPECTACLE

Une performance pour une danseuse dans un cube d'images en mouvement. Une chorégraphie qui dessine l'évanescence du rêve et l'imparfaite des choses.
2013 — 40 MIN

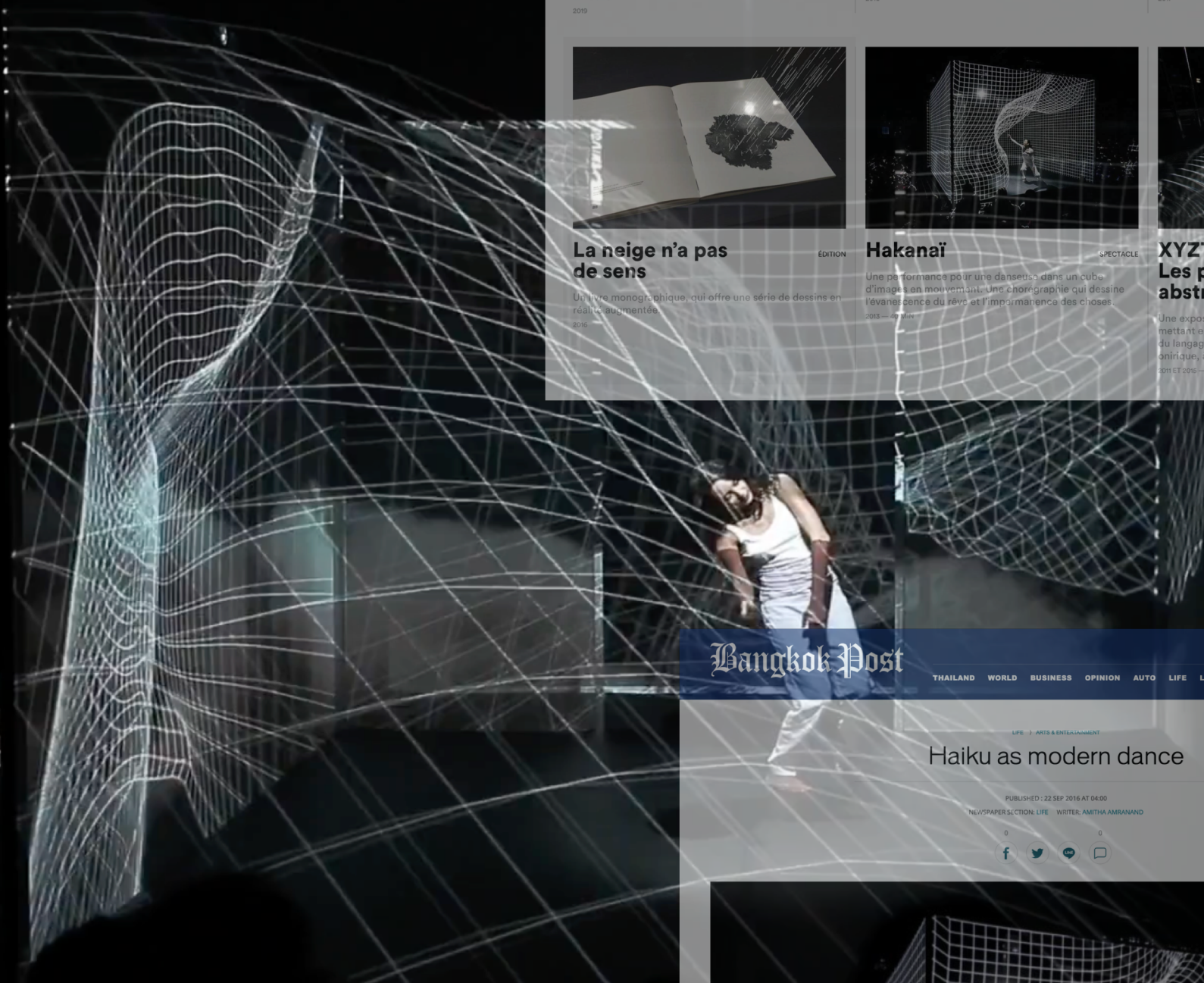
numérique.
2017



XYZT

Les paysages abstraits

Une exposition interactive, mettant en jeu le corps et le langage mathématique, onirique, à la frontière entre l'art et la science.
2011 ET 2016 — 10 MIN



Bangkok Post

THAILAND WORLD BUSINESS OPINION AUTO LIFE LEARNING TRAVEL MORE

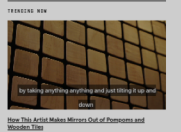
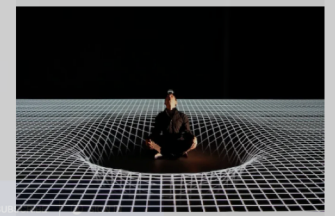
Haiku as modern dance

PUBLISHED : 22 SEP 2016 AT 04:00
NEWS/PAPER/SECTION: LIFE WRITER: AMITHA AMRANAND



Watch: This 3-D Software Is Adobe Illustrator on Acid

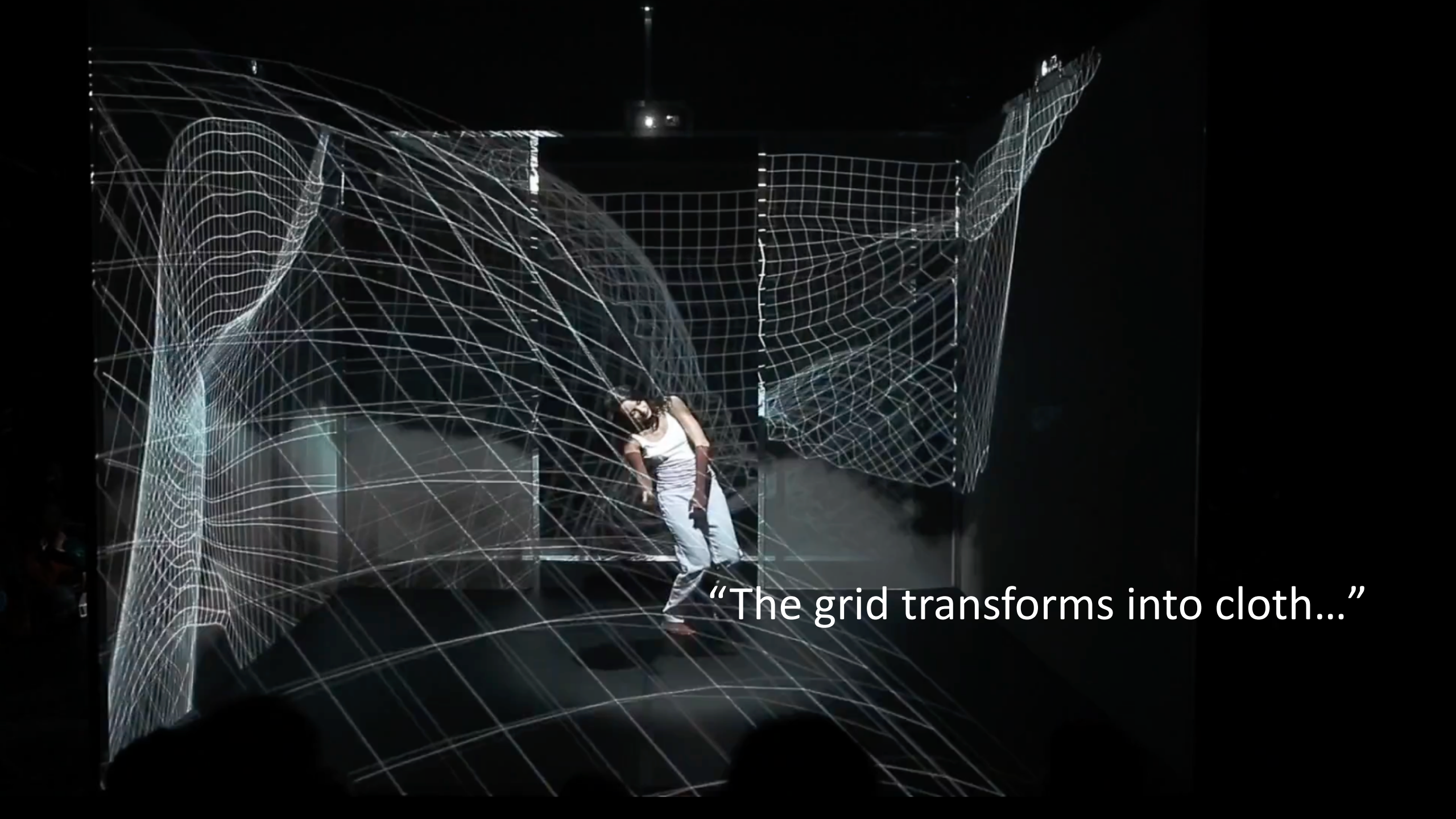
eMotion is an app for creating interactions between human movement and electronic visuals. It's been described as Adobe Illustrator on acid.



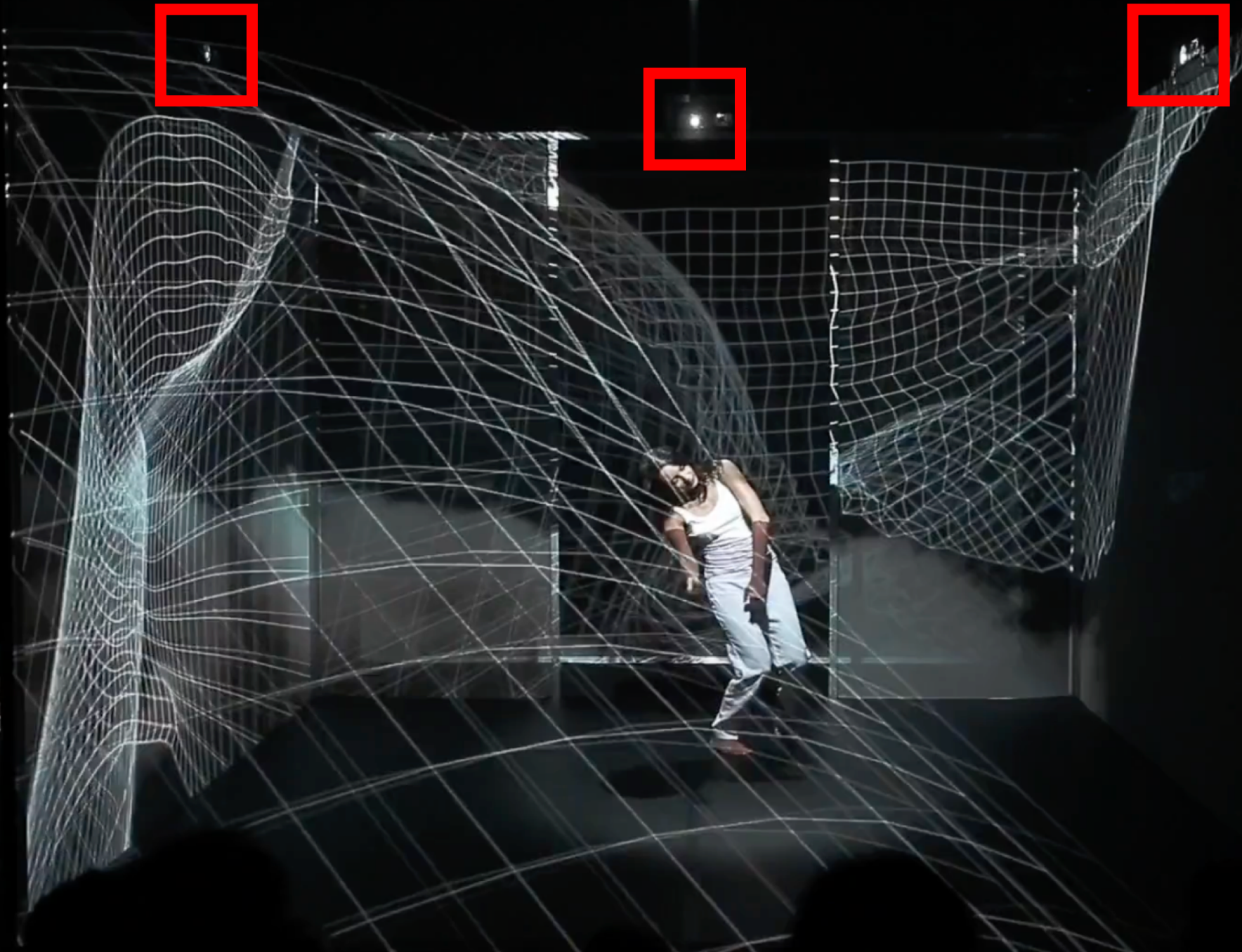
- Most Popular**
- CULTURE**
Why Adam Levine's Cringe Digs Are Perfect For the New Machine
CHRIS STEEL, MELISSA
- DEAR**
Give Your Back a Break With Our Favorite Office Chairs
JILLIAN CHERRATO
- DEAR**
Put a Little Power Cube Under Your Couch For Inspiration
KYLE ANDREWS
- IDEAS**
Why Therapy Is Broken
ELEAZAR CORREIA

IN THE VIDEO below you'll see a dancer who appears to be stuck in a white, netted cage. As she gracefully swings her elbow to the left, the cage suddenly bulges out, as though it was instantaneously inflated by her movement. A gentle turn of the knee produces a similar ballooning effect. Soon the dancer is on the floor, lifting up the corner of the light cage, as though she's peering into the street from behind a curtain. It's a surreal moment, but it's hard to know why exactly. The netting you're looking at appears to be real—it's three-dimensional and response to human motion totally believable. But it's actually made from projected light.

This is the handwork of [Adrien Mondot](#) and [Claire Bardaïme](#), two Lyon, France-based artist-technologists who are very good at blurring the lines between reality and fantasy. To make their performances work, the duo uses a host of devices (kinect, projectors, computers), but most vital to achieving these subtly trippy effects is [eMotion](#), an app that transforms electronic motion from coded and synthetic to a palpable onstage



“The grid transforms into cloth..”





MemoRekall

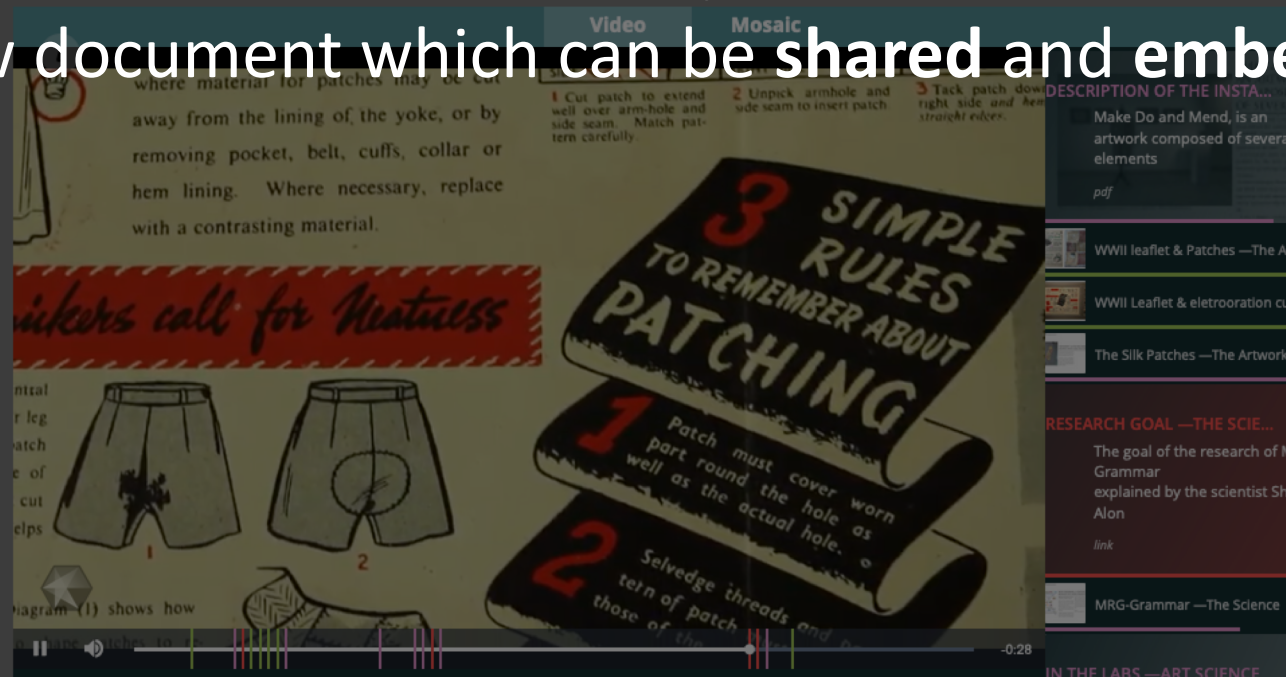
A **free and open source** web app.

Allows for the **annotation of videos**
with **multimodal documents**
(videos, images, audio
documents, annotation etc.)

Mon site web

Create *capsules*

A new document which can be shared and embedded.



Uses and Users

Preservation
Documentation
Publication
Pedagogy
Communication
...

Researchers
Artists
Cultural Institutions
Teachers and Students
Cultural Mediators
...



#2 Citizen Science

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DOSSIER DE PRÉSENTATION

@Adrien M & Claire B

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[link](#)

DISPOSITIF

Présentation de Hakanai à la Cité de la Culture, Paris-13, le 12 février 2016

Adrien M & Claire B

[jpeg](#)

DISPOSITIF- MAQUETTE 3D

Maquette en 3D de la scénographie. 2012

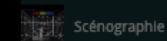
© Adrien M & Claire B

Adrien M & Claire B

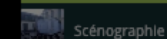
[jpeg](#)



Scénographie



Scénographie



Scénographie

Fin de la représentation

Citizen science and co-creation practices



“Knowledge production is [...] a **dynamic, multidirectional and interactive process** that is heavily dependent on **collaborative efforts** [...]

Demonstrative societal impact of research is not only the result of rigorous academic work but to a large extent depends on the **absorptive capacity** and readiness of stakeholders to **integrate research into practice**.

SSH impact occurs in an **iterative process of interaction** between academic and non-academic stakeholders across different time scales, different locations, and different sectors.”

Cavalier and Kennedy, 2016

COSMIC

<https://www.fedec.eu/en/cosmic>



Erasmus

- CO-creating and Sharing digital Methodologies in Circus education
- Supported by the FFED, the FEDEC and financed by Erasmus+.
- Development of MemoRekall as a **pedagogical tool**.

**CO-creating and Sharing digital
Methodologies In Circus education**

COESO

<https://coeso.hypotheses.org/>

- Collaborative Engagement on Societal Issues Project
 - A Horizon 2020 project.
- MemoRekall used for the **documentation** of a research and creative process, and to **communicate** the results.

coeso
connecting research and society

#3 Development of MemoRekall

FICHE TECHNIQUE

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DISPOSITIF

Représentation de Hakanai à l'espace Lino Ventura. Garges-lès-Gonesse, février 2016

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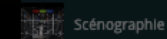
© Adrien M & Claire B

Adrien M & Claire B

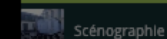
[jpeg](#)



Scénographie



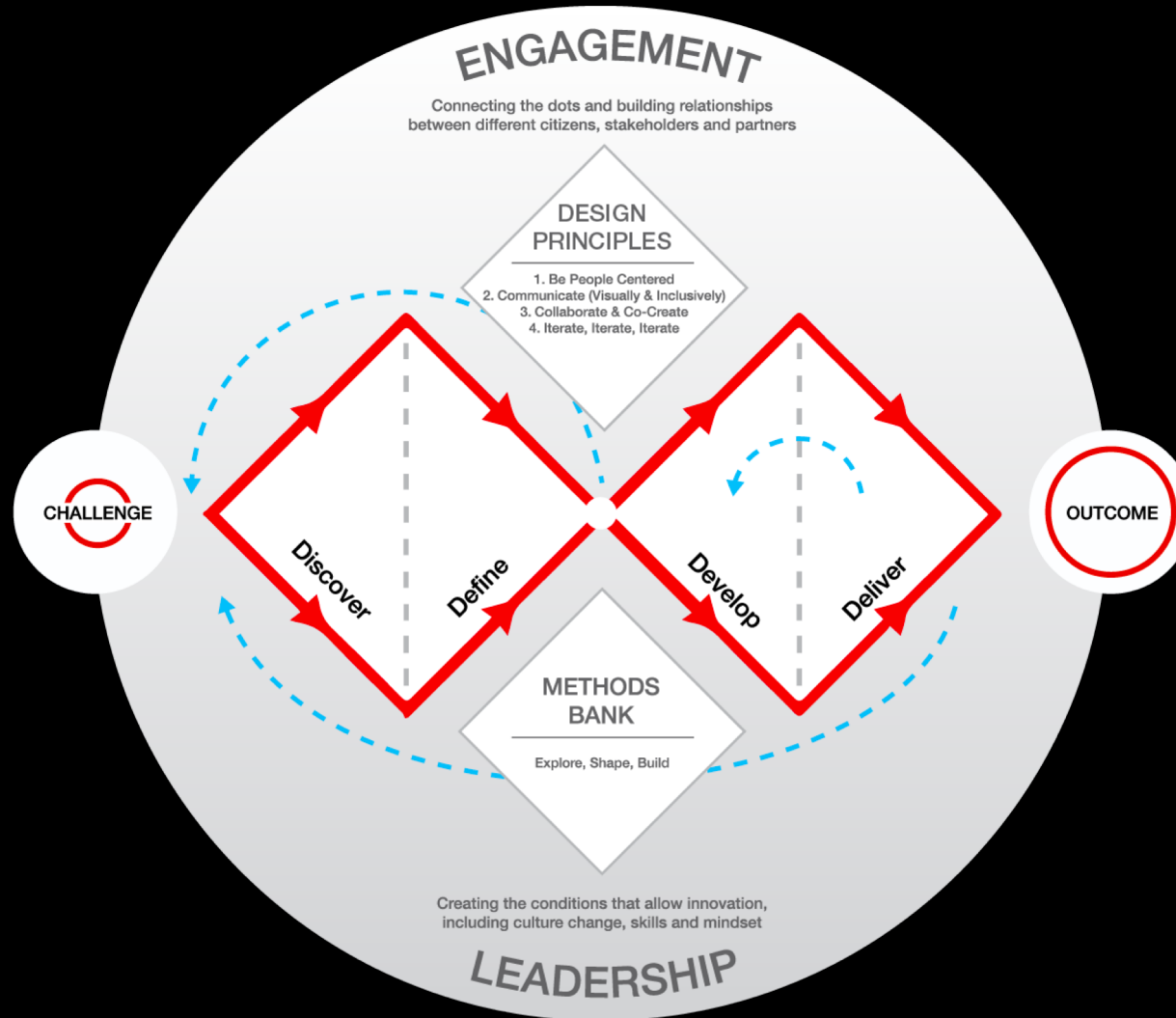
Scénographie



Scénographie

Fin de la représentation

Methodology



“Framework for Innovation: Design Council’s Evolved Double Diamond” 2019

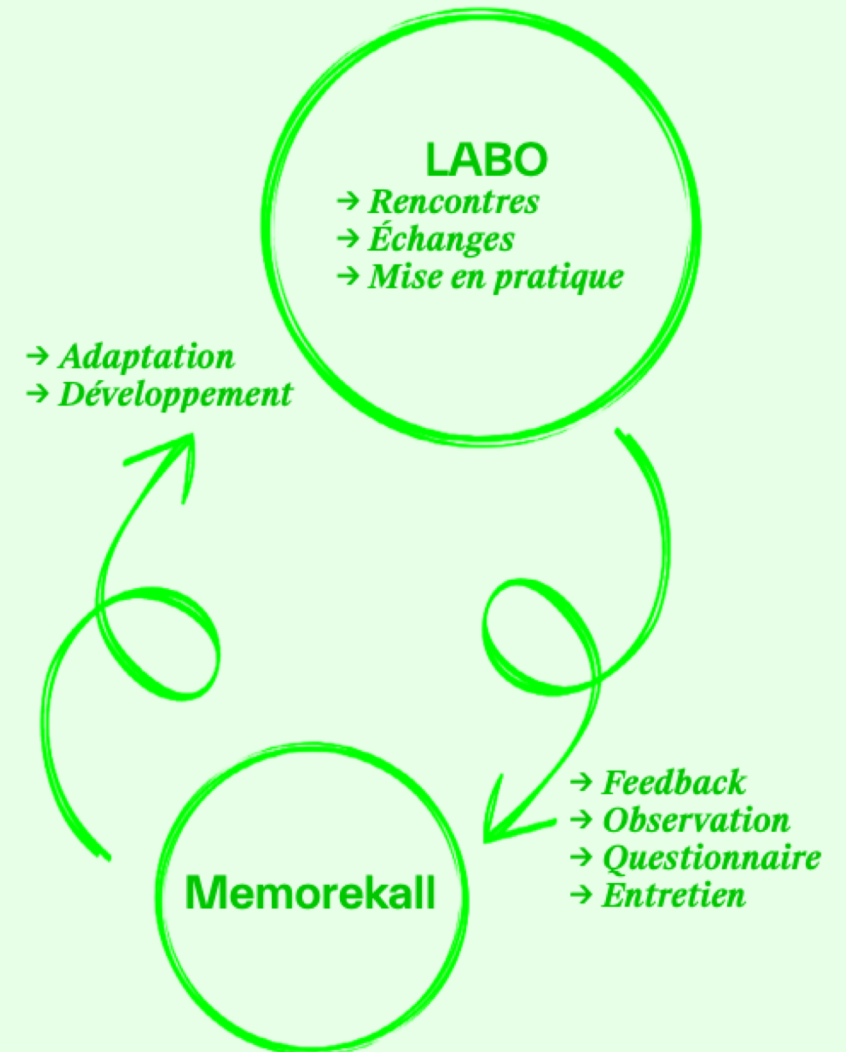
Workshop Sessions

Two phases:

- **Exploration phase**
 - Verbalization of participant's **expectations**.
 - Observation and analysis of **possibilities** and **limitations** of the existing interface.
 - "Who? What? How? Why?" method.
- **Development phase**
 - Convergence around **specific needs** and **desired features**.
 - Group decisions on the importance of proposals.
 - Creation of **interface mock-ups**.
 - Development plan communicated to IT specialists for development.

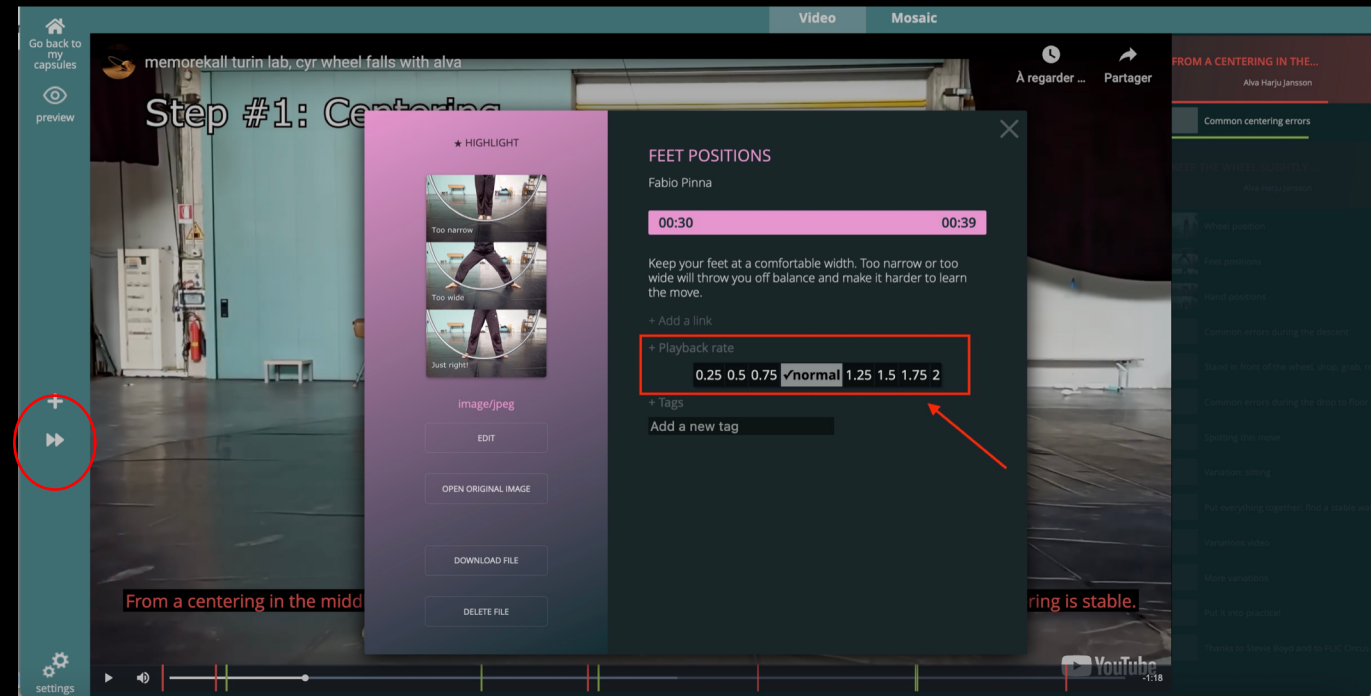
Rinse and repeat!

CO-DESIGN MEMOREKALL



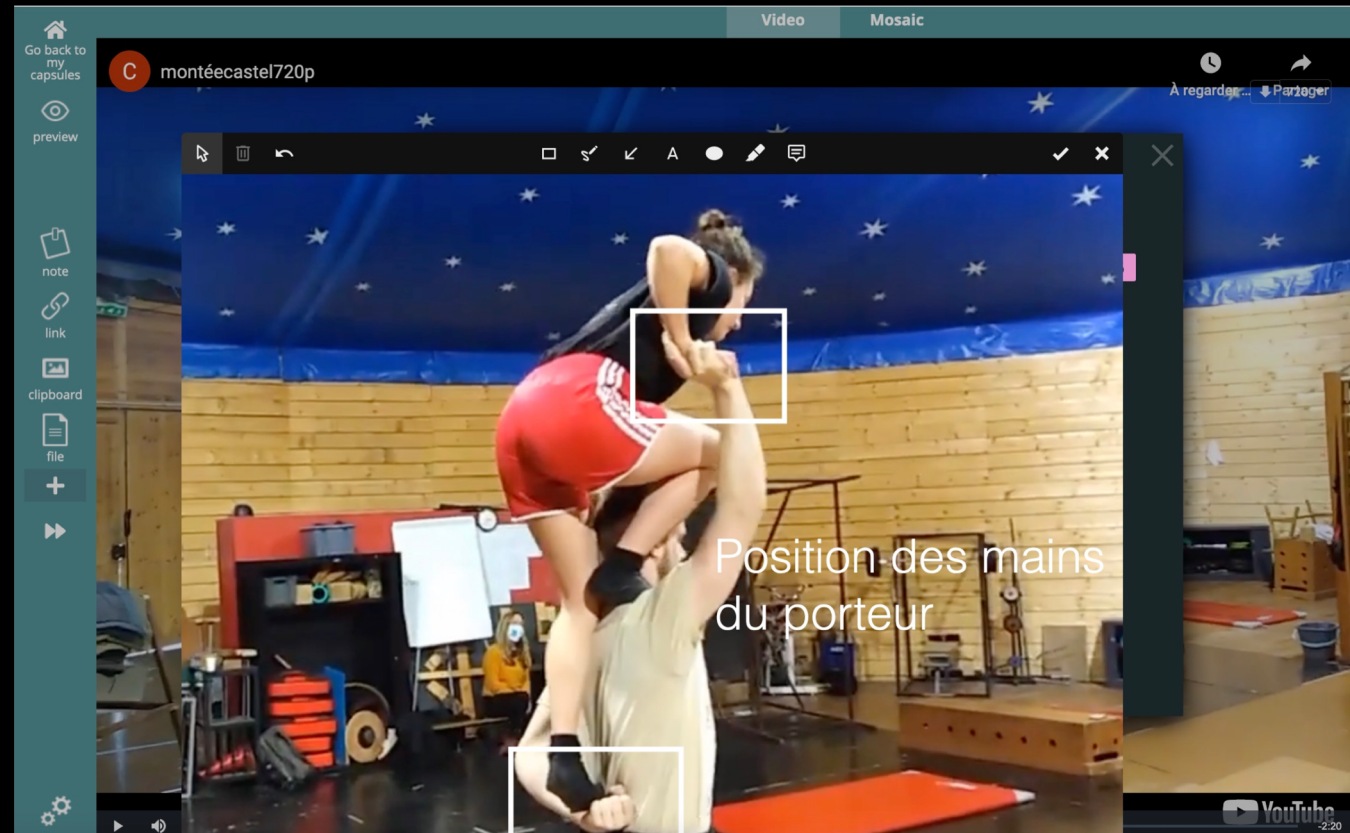
How can I change the rate of video playback?

Added feature: control of video playback speed on global and annotation levels.



How can I create visual annotations on top of the video?

Added feature:
screenshot editing
annotation.



#4 From MemoRekall To MemoRekall-IIIIF

FICHE TECHNIQUE

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© Claire Bardain...

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REPRÉSENTATION

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DISPOSITIF

Représentation de Hakanai à l'espace Lino Ventura. Garges-lès-Gonesse, février 2016.

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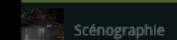
[jpeg](#)

DISPOSITIF MAQUETTE 3D

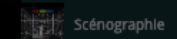
Maquette en 3D de la scénographie. 2012.

© Adrien M & Claire B

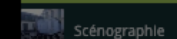
Adrien M & Claire B

[jpeg](#)

Scénographie



Scénographie



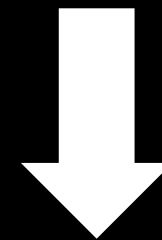
Scénographie

Fin de la représentation

COESO Project

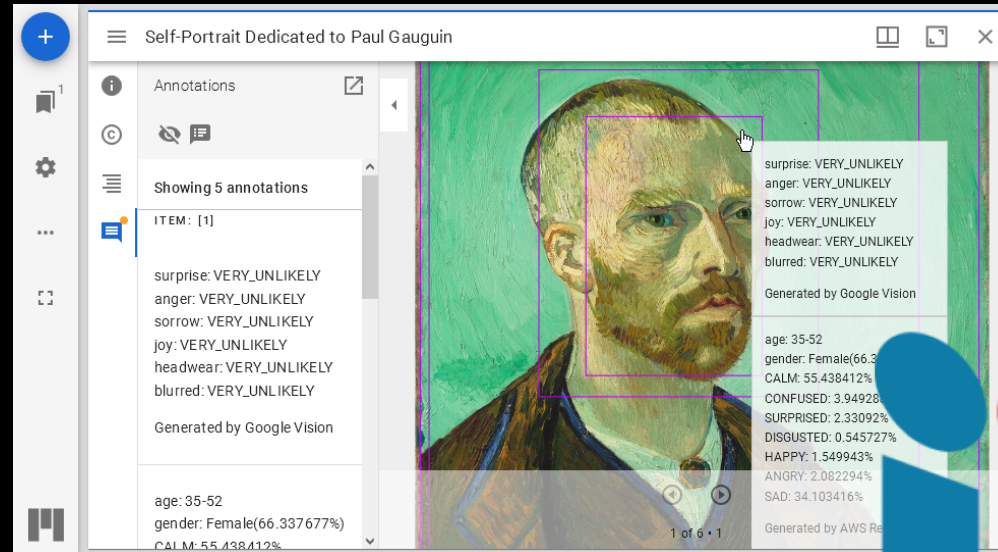
New questions...

- How can we expand MemoRekall's capacity to **link documents**?
- Is the video recording always the **main document**?
- How to explain documents like **Laban notation scores** to a general audience?



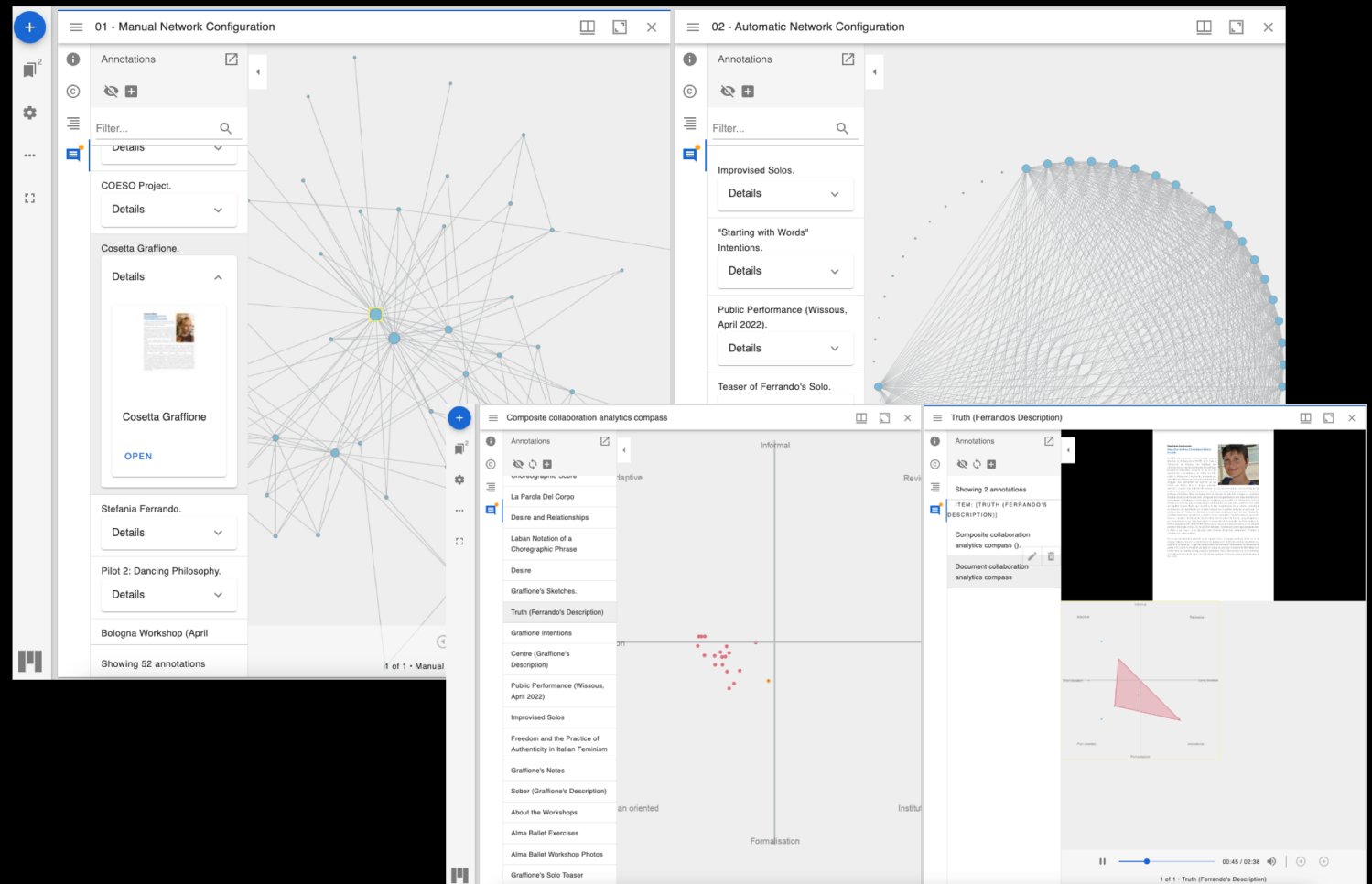
How can we expand MemoRekal's capacity to **link documents**?

- Reimplementation of the International Image Interoperability Framework (IIIF).
- Lightweight format that allows to **link to resources** anywhere on the web.
- **Interoperability** of documents following an **international standard** between viewers.
- MemoRekal-IIIF: fork of the widely-used IIIF viewer **Mirador**.



Is the video recording always the **main document**?

- Shift of perspective from video annotation to the **creation** and **navigation** of a heterarchical, multimodal document network.
- Multiple **points of entry**.
- **Data-driven interfaces** allow for bespoke interfaces to engage with the network.



#5 Conclusion

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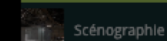
Maquette en 3D de la scénographie.

2012

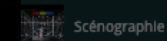
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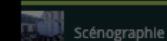
[jpeg](#)



Scénographie



Scénographie



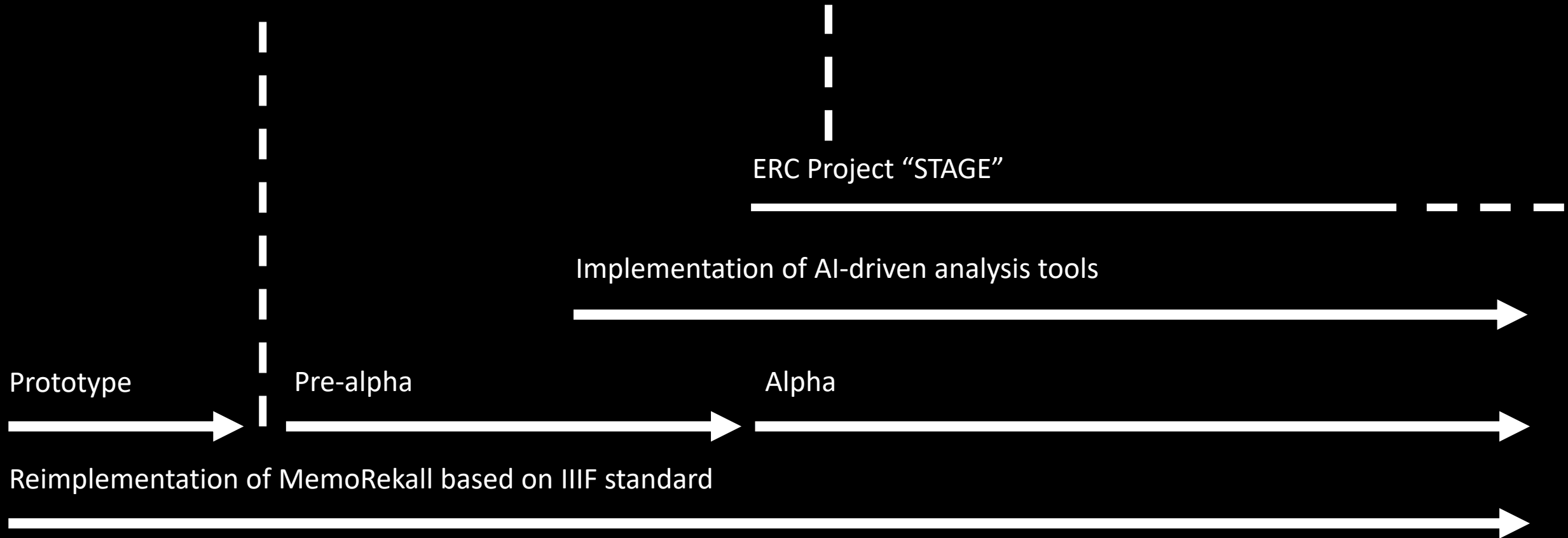
Scénographie

fin de la représentation

(MemoRekall-IIIF) Timeline

IIIF Conference 2023, Naples

Reimagining Annotation Conference, Rennes (February 2024)



ERC Project "STAGE"

Implementation of AI-driven analysis tools

Prototype

Pre-alpha

Alpha

Reimplementation of MemoRekall based on IIIF standard

2023

2024

2025



Reimagining Annotation for Multimodal Cultural Heritage Conference

<https://reimagining-amch.sciencesconf.org/>
7th – 9th February 2024. Rennes (France)

Useful links

www.memorekall.com

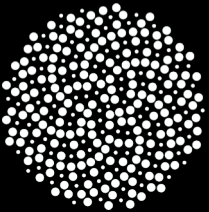
www.memorekall.com/en/memorekall-iiif-prototype

www.coeso.tetras-libre.fr

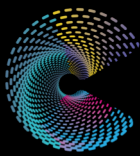
www.iiif.tetras-libre.fr

www.tetras-libre.fr

gitlab.tetras-libre.fr/iiif



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Sciences
de l'Homme
EN Bretagne



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INSTITUT
INTERNATIONAL
DE LA MARIONNETTE



le phénix
scène nationale Valenciennes



ÉTABLISSEMENT SOUTENU PAR LA RÉGION
Nord-Pas de Calais
La culture au cœur



centre national
du cinéma et de
l'image animée



Subjectile



CENTRE
NATIONAL
DES ARTS
DU CIRQUE



Le Fresnoy

Studio national
des arts contemporains