

Adrien M & Claire B

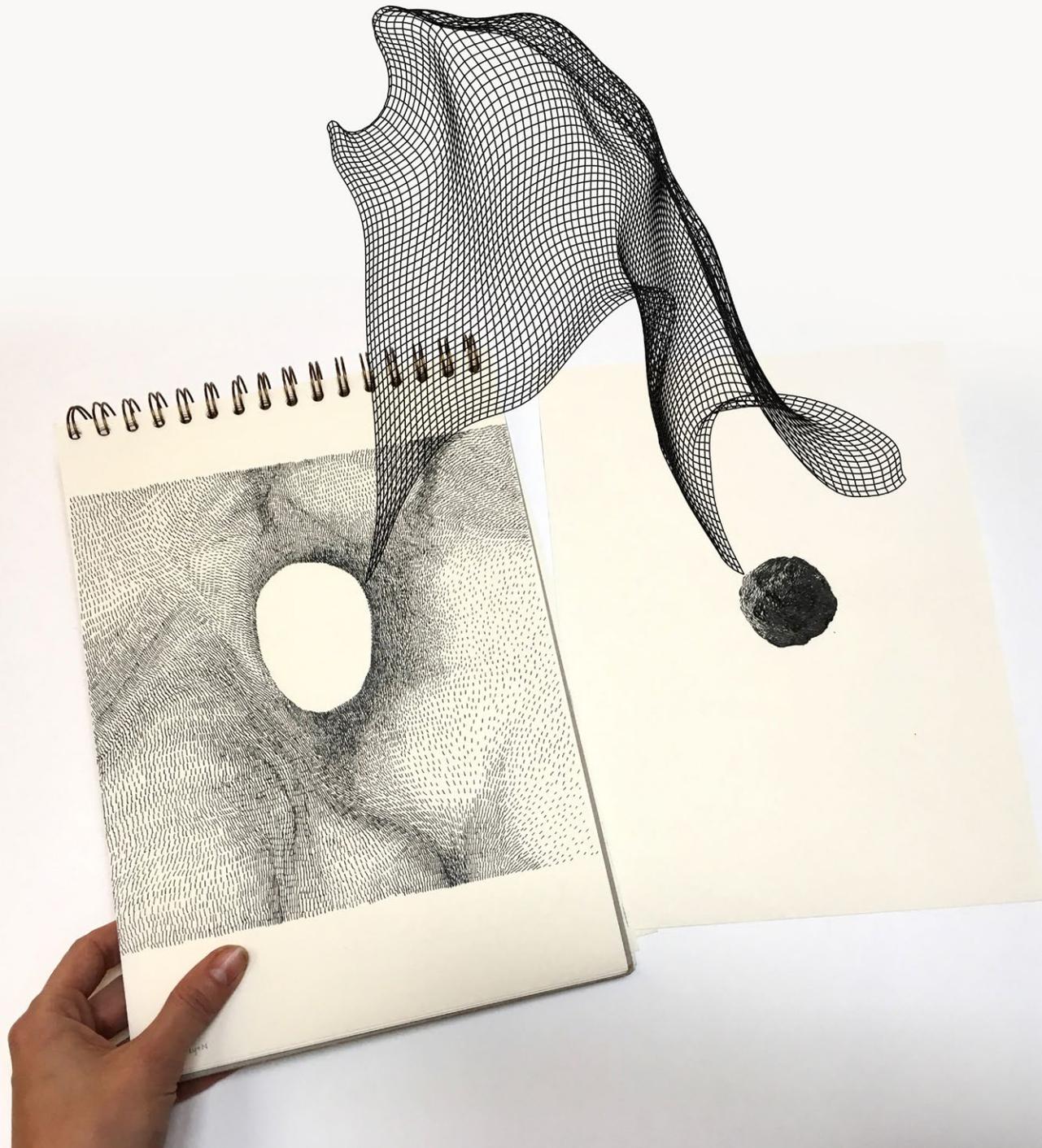
Mirages & miracles

**Exhibition
Visual Arts
2017**

Concept
Claire Bardainne
and Adrien Mondot

am-cb.net

Overview



Mirages & miracles,
the sum of the impossible
that is nonetheless real,
and the unreal that is
nonetheless possible.

Laurent Derobert

Introduction



Mirages & miracles is a series of installations.

This project is an attempt to create a sort of digital animism using augmented reality, virtual reality, holographic illusions and video-projections.

Stones are simple, heavy and motionless.
Stones are the archetype of what is real and concrete.
But listen to their silence, and you can hear them speak.
If you take a close look, they grow transparent and their inertia pulses.
They speak of the forces that consumed them, of the distances they have travelled, of the genies they shelter, of the hairs they grow.
The series *The Silence of stones* is an homage to the life nestled in things seemingly lifeless, motionless, inorganic. The figure of the stone, real or drawn, is the hallmark. The image –intangible, moving, nimble– embodies this imaginary and reveals these *objects of poetic reaction*.
Tablet computers become windows to this hidden reality.

Virtual reality headsets are technological devices that, in some way, can be considered as ghost-making machines. Someone watches you dance, speaks to you, appears and disappears, moves and then stands still. Someone is here, a shadow, a draft of air. Or an intangible dust spirit.
What makes something alive?

This corpus of artwork allows us to experience a set of unprecedented scenarios which blurs the boundary between animate and inanimate, real illusion and fake miracle. They constitute a series of short performances for one spectator aiming to explore the contours of what constitutes life, through the mischief of poetry, the strength of computing and the magic of fiction.

Claire Bardainne and Adrien Mondot

Artwork list and description

The silence of stones

A series of experiments in **augmented reality** where the spectator can observe drawings and stones through an iPad:

1. **Rain**

– 120 × 120 cm print, fixed to a plate on the ground.

2. **Trail**

– 120 × 120 cm print, fixed to a plate on the ground.

3. **Line**

1– 20 × 60 cm print, fixed to a table-top, with stones.

4. **White stone**

– Lithographies 50 × 65 cm, framed and hanged.

5. **Two stones**

– Lithographies 50 × 65 cm, framed and hanged.

6. **Black stone**

– Lithographies 50 × 65 cm, framed and hanged.

7. Series **Twin stones**

– A series of 9 bone-black screen prints, with stones.
Small formats A3, A4 and A5 placed on a table-top.

8. Series **Stones with hairs**

– A series of 14 bone-black screen prints.
Small formats A3, A4 and A5 hanged on a board.

Illusions

Three small **optical theatres**, where the spectator can observe an object coming together finely and coincidentally with a reflected image.

9. **Respiration**

– Pepper's ghost and « Sampietrini » stones.

10. **Dilatation**

– Pepper's ghost and blown glass.

11. **Erosion**

– Pepper's ghost and blown glass.

Ghost machines

Experiences with virtual-reality headsets.

12. **Murmuration**

– Duration 2 mins 30

The spectator sits in front of a luminous blown-glass artwork.

13. **Phantasme**

– Duration 2 mins 30

The spectator dances in a cube of black gauze.

Mysteries

Immersive experience in a projected image environment.

14. **Tempo geologico**

– Video projection on metal veil.

Augmented reality



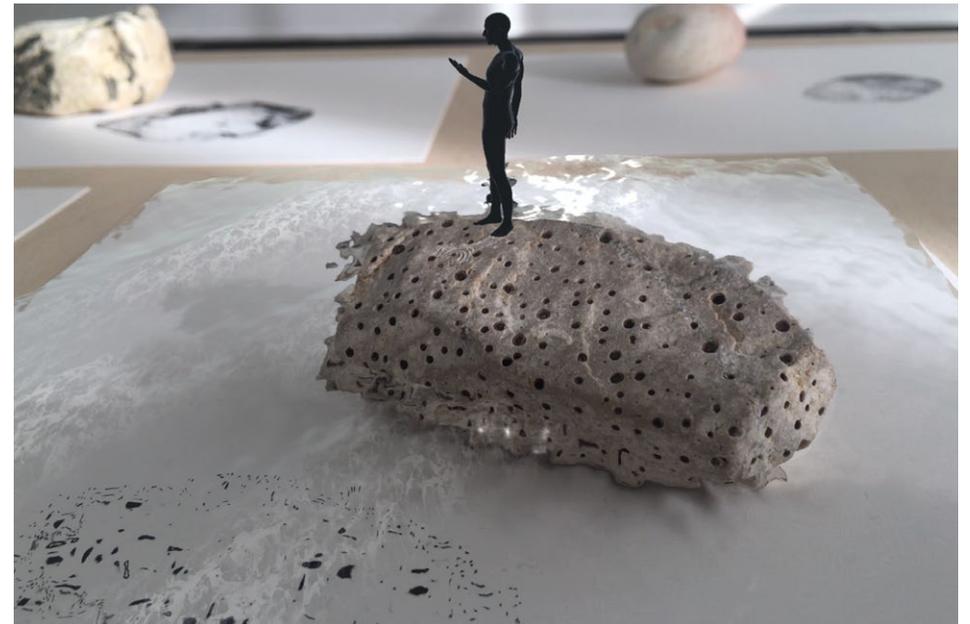
Augmented reality



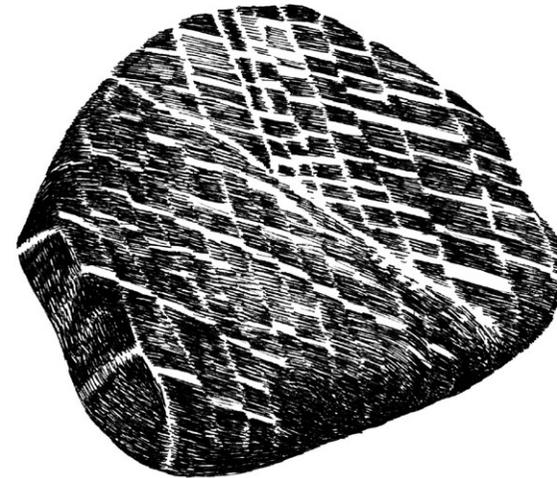
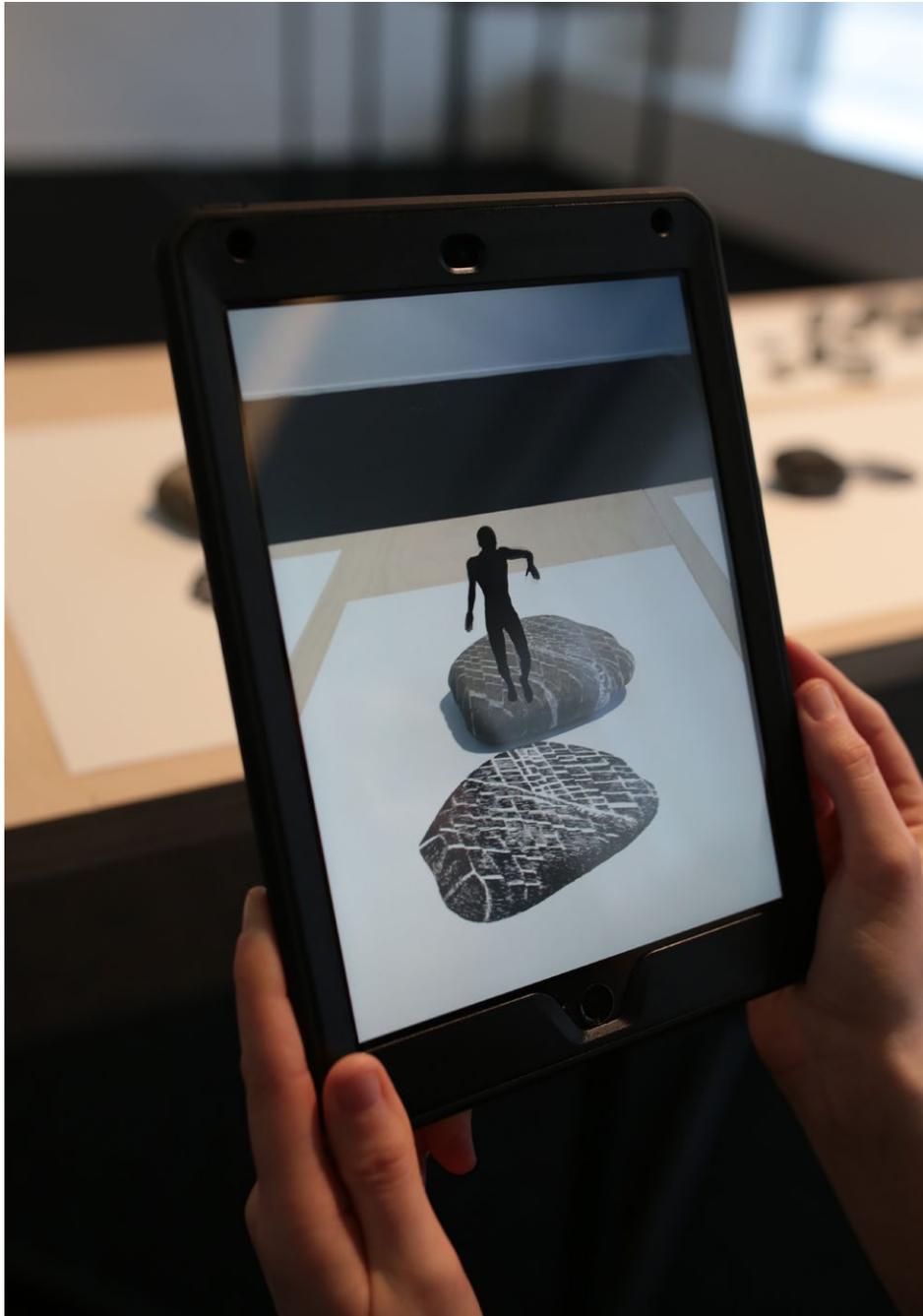
Augmented reality



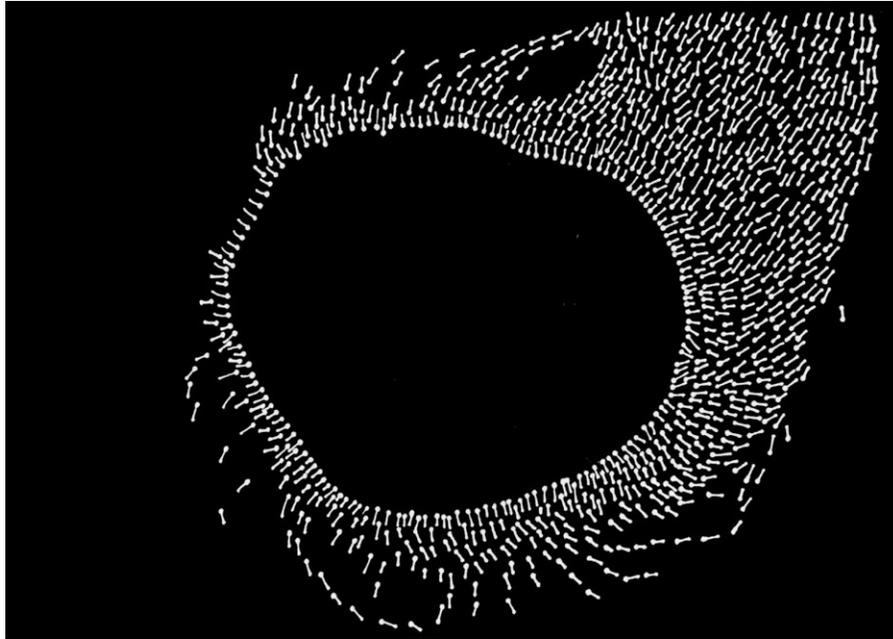
Augmented reality



Augmented reality



Augmented reality



Augmented reality







Virtual reality



Photomontage of images perceived in the headsets of virtual reality.

Virtual reality



Keywords of the Exhibition

Mathematics

Mirages & miracles is the title of this exhibition project. It was given to us by the artist Laurent Derobert* along with the equation assigned to “M”, the set of impossible events that nonetheless occur:

$$M = \{ \gamma : p(\gamma) \in \mathbb{C} - \mathbb{R}^* \}$$

Mirages & miracles, is the sum of the impossible that is nonetheless real, and the unreal that is nonetheless possible. An experiential exhibition as a means to invert what is real and possible.

* Laurent Derobert is the creator of existential mathematics. He explores our relation to the world in algebraic form and creates equations that are rigorous and sensitive poems. mathematiques-existentielles.com/laurent-derobert/

Mirage

A mirage (from *miror*, *mirari*: to be amazed, surprised) is an optical phenomenon resulting from the bending of light rays as they pass through superimposed layers of air of different temperatures.

Hand drawings

All the pictures on paper were drawn by hand on a scale of 1 with China ink or gouache pens before being copied using either a screen-printing process and bone-black pigment, or a lithographic process with images drawn directly on stones.

The pictures show stones, drawn with the delicacy of freehand lines. They evoke natural shapes and patterns from which they sometimes break free in order to become less figurative. The black and white drawings allow the blank page to be seen and leave space for the imagination. The pen strokes hint at the motion within.

Lithography

From the Greek *lithos*, “stone”, and *graphein*, “to write”, lithography is a printing technique invented at the start of the 19th century. Three large format drawings were created for this exhibition using this printing process. The images are drawn in ink directly onto a limestone slab. Once the print run is finished, the slab is sanded down and the image erased.

Computer generated images

The images are graphically minimalist and represent rain, tornadoes, flights of insects, hair and evoke ghosts, doppelgängers and spirits. The coding of digital movement is based on physical models observed in nature. In order to transpose the vitality of living presences to the digital realm, all images are generated live. The sensuality and energy of their motion is what transports the viewer. They appeal to our imagination and to the experience of movement each of us carries within. And although they are generated by a computer, they are deeply moving: visitors no longer see them as images but rather as full-fledged living beings. Abstraction and graphical minimalism are important to us. We believe that interpretation should be free and that each spectator is allowed to create his own imaginary space. We also enjoy balancing the dryness of geometry with the infinite realistic shades of motion and a touch of “craft” in our drawings.

Optical theatre

The Pepper’s Ghost is a classic magic trick dating to the 19th century which enables an image to be projected mid-air. It relies on the optical properties of a mirror -placed at a 45° angle from the image source- which only reflects the luminous parts of the image. This makes it possible to superimpose an imaginary space over reality.

Objects of poetic reaction

Le Corbusier called “Objets à réaction poétique” (objects of poetic reaction) all simple shapes, raw materials, and found objects that trigger the imagination. Many stones are scattered throughout the exhibition space. From these objects we extract a story, real or imagined, which takes shape in our digital images. We also draw on the physical laws expressed in each stone’s shape and markings (wear, erosion, fractures).

Motion capture

Motion capture is a technique developed for movies and videogames that allows the position and rotation of objects or limbs to be recorded and animated virtually on a computer. Motion capture is a bridge to the performing arts. By precisely capturing the body’s movements in three dimensions and transferring them to a digital body, a troubling and convincing feeling of life can be suggested. Thanks to this recording technique, paper drawings can hide a body inhabited by a short choreography, and we can cross paths with ghosts in a virtual reality installation.

Augmented reality

What do we mean by “augmented reality”? Precisely combining in multiple places real and virtual representations. Thus, one can become an extension of the other and create sensations and emotions. The line between material and immaterial becomes blurred, crumbles and slowly fades away. The boundary that separates the real and the virtual dissolves leaving a single space, a new reality. Creating these coincidences involves weaving plausible bridges between information gathered from our senses and a computer generated space born from our human imagination. In other words, creating these coincidences is the process of creating an augmented reality. Since the founding of our company, this process has been at the centre of our focus. Today, we use a custom designed iPad application based on inferred perspective: the algorithm recognises an image and is able to precisely infer the position and angle of the camera with respect to this image. It is then possible to generate a virtual animation whose volumes and placement overlays reality perfectly.

Blown-glass

Some of our optical theatres use a blown-glass object. Glass-blowers use a pipe in which they blow short puffs of air (to avoid a reflux of hot air) to form a bubble inside the melted glass. Glass is made from silicon dioxide, the primary component of sand. A master glass-blower supports us in this new exhibition by creating gentle, organic shapes that prolong the shapes of stones without directly copying them.

Phantasme

From the latin phantasma, this word conjures up a ghost, a spectre, an image, an apparition, and all representations that our imagination can muster.

Murmuration

Similar to a swarm of insects or a school of fish that moves as one, the murmuration of birds is a natural phenomenon that is rare and remarkable. It consists of hundreds of small birds flying as a unique entity of conscience. Its principal function is survival: no individual wants to leave the mass, nor wants to land first, these behaviours create a vast moving cloud.

Lists of Requirements

Summary of technical devices

4 types of devices:

Virtual reality headsets

— HTC Vive and Oculus Rift,
— 2 min 30 installations.

Drawings and stones observed in augmented reality, using iPads

— formats from A5 to 120 x 120cm.

Optical theatres

— built using the scale of iPad pro.

Video projections

— format 5m x 3m

Space

Surface area:

around 250msq.
The works cover a minimum surface area of 250msq, which can be distributed across several rooms.

Height: 3,30m minimum, 4m recommended.

Condition: space provided in working condition: empty rooms, clean walls, no dust on floor.

Darkness: An area must be sufficiently dark to allow for virtual reality and video projections.

Lighting: Daylight is preferred in the space where the augmented reality is showcased. The exhibition space must provide additional artificial lighting in every room.

Technical visit: a preliminary visit to the venue must be organised to study/confirm the technical and artistic feasibility as well as think up an exhibition layout plan.

Hanging: hanging system to be determined according to existing possibilities in the venue. All works that are not self-standing have been designed to be suspended from the ceiling.

Required storage during exhibition run: 15msq of wooden cases and empty flight cases with wheels.

Capacity: 40 people max, given sufficient surface area and exhibition mediators.

Set-up and Take-Down

Set-up:

Company staff:
2 technicians, Claire and Adrien, 1 producer

Venue staff to be provided:
4 people

Day one: arrival
Day two: unloading of the truck, set-up
Day three: set-up
Day four: set-up, adjustments, transmission with mediators.
Evening of Day four: exhibition opening, no earlier than 6pm.
Day five: departure

Take-down:

Company staff: 2 technicians
Venue staff to be provided:
4 people

Day one: arrival, inventory on closing of last day of activity
Day two: take-down
Day three: take-down, loading of the truck
Day four: departure

Onsite staff and Mediation

Staff for start-up and shut-down of the exhibition:

It is recommended that the person starting-up the exhibition in the morning and shutting it down at night be a technician. An operating manual will be provided (procedures for start-up and shut-down, servicing, maintenance, and troubleshooting).

Mediators:

The exhibition is designed for visitors to wander freely, but **technical and mediation support is mandatory.**

Staff will need to be provided by the exhibition space, and organised as follows :

- At the entrance of the space: 1 person to count visitors, as well as lend and collect iPads in exchange for an ID card. iPads need to be charged after use.

- Inside the space: 1 person minimum non-stop.
Final number to be determined based on number of visitors. Please count one mediator for 10 visitors (so, 4 mediators in case of high attendance rates).

Mandatory missions for mediators:

Placing spectators in the 2 installations using virtual reality headsets, helping visitors to use the iPads, and generally overlooking the smooth running of the exhibition for protection of the works.

Optional missions:

guided tours, additional information on the exhibition. A set of educational tools will be provided to all mediators by the company.

Cultural mediation tools:

An example guided tour with Claire and Adrien will take place before opening night. Programme sheet content (A4, black and white, double-sided) will be provided by the company.

If necessary, the venue will design and print exhibition labels using content written and provided by the company.

Young audiences:

The exhibition is appropriate for all ages, but is not specifically intended for children given the fragility of certain works and the devices/tools at use (iPads, optical theatres with glass components, unprotected drawings and objects, virtual reality headsets are not for children under 13 as per manufacturer's recommendations). Please ensure that children under 8 are always under the supervision of an adult.

Team

Concept and artistic direction

Claire Bardainne and Adrien Mondot

Drawings Claire Bardainne

Computer design Adrien Mondot

Computer development Rémi Engel

Composition and sound creation Olivier Mellano

Dance Bérengère Fournier, Samuel Faccioli, Akiko Kajihara

Technical management Jean-Marc Lanoë

Exhibition set-up Elvire Tapie, Mélina Faka, Yannick Moréteau, Claire Gringore alternating

Carpentry DeFacto / Julien Quartier, Charles Robin — Atelier Gautier

Steel locksmith Mathieu Laville, Rémy Mangevaud, Elvis Dagier

Aluminium locksmith Teviloj / Ludovic Laffay

Electronics Sébastien Albert alias Dudley Smith

Lithography URDLA, centre international estampe & livre

Screen-print Olivier Bral

Printing Artprint

Blown-glass Nicolas Sartor

Technical direction Alexis Bergeron

Administration Marek Vuiton

Production and Booking Joanna Rieussec

Tour Production Margaux Fritsch, Delphine Teypaz

Photos

© Romain Etienne - item and © Adrien M & Claire B

Partners

Production Adrien M & Claire B

Co production

2 Pôles cirque en Normandie

– La Brèche à Cherbourg – Cirque Théâtre d'Elbeuf (France)

Scène nationale d'Albi (France)

Les Subsistances, Lyon (France)

LUX, scène nationale de Valence (France)

Espace Jean Legendre, Théâtre de Compiègne (France)

Arenberg Creative Mine – Communauté d'Agglomération de La Porte du Hainaut (France)

Funding

Fonds [SCAN], Région Auvergne-Rhône-Alpes

Support

Villa Medici, Rome (Italy)

URDLA - centre international estampe & livre, Lyon (France)

UrbanLab, Lyon (France)

Adrien M & Claire B is accredited by the DRAC Auvergne-Rhône-Alpes and by Auvergne-Rhône-Alpes Region as well as being supported by the City of Lyon.



Adrien M & Claire B

The company Adrien M & Claire B creates digital and living art forms, ranging from stage performances to installations. It is co-directed by Claire Bardainne and Adrien Mondot, whose approach puts the human experience at the centre of technological issues, with a strong visual focus on the body and the use of unique technology created in-house. They strive to create living digital art: mobile, handcrafted, ephemeral, and responsive.

Claire Bardainne is a visual artist with a background in graphic design and scenography. Her research focuses on the pictorial and graphic imaginary, graphic signs, especially in their space-constructive capacity.

Adrien Mondot is a multidisciplinary artist, computer scientist and juggler. He is interested in movement, and works at the intersection of juggling art and computer innovation.

Since 2011, they co-sign all the projects and jointly lead Adrien M & Claire B company.

Today, the company counts around 30 collaborators, as well as two performances and two exhibitions touring internationally. Its Lyon headquarters also house a research and creation studio. The company is accredited by the DRAC Auvergne-Rhône-Alpes and by Auvergne-Rhône-Alpes Region as well as being supported by the City of Lyon.

- 2019 **Acqua Alta** — show, pop up book with augmented reality, virtual reality
- 2018 **The shadow of the vapor** — site specific artwork, Fondation d'entreprise Martell (Cognac)
- 2017 **Mirages & miracles** — exhibition
- 2016 **Snow does not make sense** — book
- 2015 **The movement of Air** — show
- 2015 **SACD Award** for creative interaction
- 2014 **Pixel** — show / collaboration
- 2013 **Hakanai** — show
- 2011 **XYZT, Abstract Landscapes** — exhibition
- 2011 The company is refounded and becomes **Adrien M & Claire B**

Company website
am-cb.net

Contacts

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Booking and production

Joanna Rieussec
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Artistic co-direction

Claire Bardainne and Adrien Mondot

Administration

Marek Vuiton
administration@am-cb.net

Technique Direction

Alexis Bergeron
+33 6 10 29 42 03
technique@am-cb.net

Tour production

Margaux Fritsch, Delphine Teypaz
production@am-cb.net

Postal address and headquarters

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Links

Video trailer 3 mins approx..
vimeo.com/amcb/mm

Overview

am-cb.net/docs/AMCB-MM-Overview

Images

am-cb.net/docs/AMCB-MM-Images.zip

Technical rider

am-cb.net/docs/AMCB-MM-TechRider.pdf

Other projects on tour



Acqua Alta

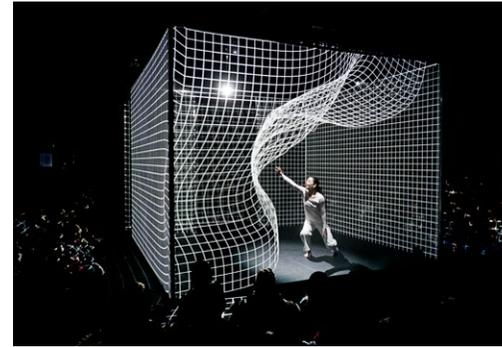
2019

Stage performance and 2 installations. A journey in the imagery of water, with a stage performance, a pop-up book in augmented reality and an experience in virtual reality. The suggested parcours is made up of the three experiences above, they resonate with one another.

Overview <http://am-cb.net/docs/AMCB-AQA-Overview.pdf>

Trailer am-cb.net/videos/aqa

photo © Romain Etienne - item



Hakanai

2013

Solo dance and digital arts

Duration : 40 min

A choreographic performance for one dancer into a digital, dreamlike and changing environment.

Overview <http://am-cb.net/docs/AMCB-HKN-Overview.pdf>

Trailer am-cb.net/videos/hakanai

photo © Romain Etienne - item



XYZT, Abstract Landscapes

2011 and 2015

Exhibition-itinerary

10 interactive installations

An interactive and immersive walk into a digital and lush territory, where touching algorithm or feeling the matter of light becomes possible.

Overview <http://am-cb.net/docs/AMCB-XYZT-Overview.pdf>

Trailer am-cb.net/videos/xyzt

photo © Laurence Fragnol