

May 14 STEM 360-degree projected virtual 3D abstract paintings in European cultural spaces digital immersive exhibitions

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## What/Where

Past shows in Paris: Gustav Klimt, Egon Schiele, Chagall and Friedensreich Hundertwasser; shows in 2 other locations in France; a show in South Korea; a show in NY City

Paris digital art museum Atelier des Lumières (Workshop of Lights) in an old foundry with 50 ft walls. Seamless projections on walls, floor, columns and ceiling. Art is animated.

360 degrees for Klimt and Hundertwasser was in 2018

<https://www.atelier-lumieres.com/fr/klimt-et-hundertwasser-en-360>

<https://www.modulo-pi.com/showcase/ateliers-des-lumieres/>

Map of Paris showing location

<https://www.france.fr/en/paris/article/enter-new-atelier-des-lumieres-paris>

In eastern Paris between Bastille and Nation, an old iron foundry with large grey walls changed into a 360° art museum. Visitors will be able to wander into the very centre of works of art projected with 360° views.

They now have exhibits for Gaudi and Dali they open May 19 <https://www.atelier-lumieres.com/en>

Dali <https://www.atelier-lumieres.com/en/dali-endless-enigma>

Gaudi <https://www.atelier-lumieres.com/en/node/1121>

Main offices are in quarries in Provence and the first digital immersive exhibitions located in Baux-de-Provence, the quarries are managed by the company Culturespaces.

CARRIÈRES DE Lumières LES BAUX-DE-PROVENCE (Bunker of Lights)

Van. Gogh is past in Provence

Cezanne and Kandinsky are next in Provence

ANIMATED VIDEO -- <https://www.carrieres-lumieres.com/en/home> short video Cezanne and Kandinsky

ANIMATED VIDEO -- <https://www.carrieres-lumieres.com/fr/cezanne-maitre-provence>

ANIMATED VIDEO -- <https://www.carrieres-lumieres.com/fr/vassily-kandinsky-lodysee-labstrait>

BASSINS DE LUMIÈRES BASE SOUS-MARINE - BORDEAUX (Basin of Lights)

Klimt, Cezanne, Klee

ANIMATED VIDEO -- Klimt <https://www.bassins-lumieres.com/en/node/1079>

images <https://www.bassins-lumieres.com/>

Monet, Renoir, and Chagall and many other

images <https://www.bassins-lumieres.com/en/monet-renoir-and-chagall-journeys-around-mediterranean>

BASSINS DE LUMIÈRES BASE SOUS-MARINE - BORDEAUX (Basin of Lights)

<https://www.bassins-lumieres.com/>

Van. Gogh exhibit is past Cezanne and Kandinsky next

ANIMATED VIDEO -- CEZANNE <https://www.carrieres-lumieres.com/en/cezanne-maitre-provence>

ANIMATED VIDEO -- KANDINSKY <https://www.carrieres-lumieres.com/fr/vassily-kandinsky-lodysee-labstrait>

Other shows in France

Aix en Provence Hotel de Caumont Art Center  
Jacquemart -Andre Museum in Paris

Outside France

South Korea 360 degrees wrap around columns, onto floors, ceilings and walls

Bunker de Lumières

MONET, RENOIR, CHAGALL April 23 2021 - Feb 28 2022

2022 Hall of Lights -- Manhattan Tribeca neighborhood in association with IMG NY

<https://www.culturespaces.com/fr/sites/hall-lumieres>

## How

A technological upgrade

After choosing video-projectors with higher resolution for better image quality, the teams of Culturespaces decided to rely upon Modulo Pi's solutions to better answer their requirements for Atelier des Lumières but also for their upcoming installations in France and abroad: "We are dealing with installations based on 90 to 140 video-projectors (the Klimt show used 130 or 140 Barco projectors)."

<https://www.modulo-pi.com/showcase/ateliers-des-lumieres/>

The AMIEX process (Art and Music Immersive Experience)

140 video projectors and a spatial sound system are used in the show. The display is unique among its genre thanks to its monumental dimensions“ an impressive 3,300 m<sup>2</sup> of surfaces and walls 10-15 meters high. The 35 units of Modulo Kinetic showed their efficiency at every stage of the project. Augustin de Cointet de Fillain provides more details about the crucial role played by Modulo Pi's media servers prior to setting up : "We load a 3D plan of the venue, fill in the type of video-projector we'll be using and what we want for each wall in terms of image pixel size and luminosity. Then, the Modulo Kinetic tells us where the VPs should be positioned, what the image distortion will be, the luminosity rendering on each area. Once this simulation phase is done on Modulo Kinetic, we move on to the venue. Then, the Modulo Kinetic tells us where the VPs should be positioned, what the image distortion will be, the luminosity rendering on each area. Once this simulation phase is done on Modulo Kinetic, we move on to the venue.

When at the venue, the installation and fine-tuning stages "central to the immersive effect “ are done so as to give the impression of projecting one single image over the whole surface. Among other things, Modulo Kinetic helped handle the overlaps and soft edges, and made warping easy with the Xmap mode. The result was a seamless projection over the entire show surface.

Installation and fine-tuning had to be done within a limited time frame as Roman Hatala explains: The audiovisual work comes at the very end. That was a real challenge to have everything set up and adjusted while the renovation work of the venue was still going on. In this context, the features offered by Modulo Kinetic, allowing several users to work on settings at the same time, was key: Modulo Kinetic allows shared and mutualized work on geometry. It helped us save a great deal of time by having someone working on a wall on one side, a second person on another side, and a third person working on the floor. To achieve all the fine-tuning in a shortened time, that was a real advantage.

A reliable and comprehensive show controller

Once the set-up was over, Modulo Kinetic was then used as a show controller to handle and sequence all media that are part of the show: videos, music, images.. That is the true force of

Modulo Kinetic. It's a comprehensive system in which anything can be centralized and controlled: videos, lights, sound, and interactive lasers, comments Augustin de Cointet de Fillain. Without Modulo Kinetic, we would have had no choice but to manage a string of not very reliable different systems, multiplying the overall system's fragilities. We needed a super stable system with full and permanent control. We cannot afford to have a huge black wall.

Video of Modulo Kinetic in interactive action <https://vimeo.com/289508426>

more info <http://bit.ly/MODKinetic>

“Modulo Kinetic is a super high-end and fully-integrated media server with embedded live mixer which will be the cornerstone of your complete workflow.

Perform study, simulation, show creation, encoding, playback and control ... all of it through one single box.

With its intuitive user interface and advanced innovative features, Modulo Kinetic offers unprecedented real-time 3D, interactivity, and tracking. “

To make everyday management and maintenance easier, Modulo Kinetic comes with an app that handles the shows through pre-programmed loops, while also giving regular feedbacks ensuring the overall AV system is operating accurately at all times.

The show control and remote maintenance system was programmed by Cadmos' teams, who have been working with Modulo Pi's media servers for several years: Modulo Pi was the best choice for this project. Their systems bring reliability, scalability and an image quality that cannot be reached with any other system, explains Roman Hatala. In our museum and contemporary art projects, Modulo Pi's media servers allow us to work with Apple ProRes or uncompressed contents for better image quality. We also enjoy the capability of integrating custom show control and management options so that our clients can benefit from fully controllable and autonomous systems.

To pursue its mission of bringing to the public a new way to discover Art, Culturespaces is currently working on the launch of new immersive art exhibitions in the United States and Korea.

These new large-scale projects will also rely upon Modulo Kinetic for the simulation, set-up, show control and maintenance operations. We were looking for a reliable partner for our upcoming projects, and it will be Modulo Pi, states Augustin de Cointet de Fillain. We confirmed that choice due to our requirements in terms of reliability, but also because these systems allow us to anticipate and transpose the creation of our upcoming exhibitions.

An anticipation made possible thanks to a vignette system that enables to export and work with low definition versions of the media involved in each show. It helps us anticipate future creations which is very important. This way, we don't have to close our venues for too long.

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## Who – Companies

Modulo Pi -- equipment design and manufacture, media servers

Cadmos -- integrator

Culturespaces -- production design specialists in the development of monuments, museums and art centres

The Atelier des Lumières is a digital art center projecting immersive exhibitions, labeled "Listed natural site". Located in Baux-de-Provence, the quarries are managed by the company Culturespaces. Until 2012, the show, as well as the managing company, were called Cathédrale d'Images. Wikipedia