

# MEDIA-FX

MUSEOGRAPHIC CONSULTANTS AND PRODUCERS

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Media-FX Inc. is a Montreal based Production Company whose principal activities are concentrated in the realms of multimedia and museography. These activities include specially conceived and designed stage productions. The concepts, projects and productions for which the Company is called to contribute its expertise require state of the art technological applications in the fields of electronics and computer controlled special effects and events. Born of a desire to marry art and technology, Media-FX facilitates development and creation ensuring that the integrity of an original idea is maintained from the design stage up to the final delivered product. Exhibit and graphic design; the digital processing of sound, video and graphics; the automation of scenic or exhibit elements; technical direction and video production and post-production all fall within the Company's sphere of activities.

At the technical level, Media-FX Inc. also specializes in the development of computer software designed to control the interactive programs, as well as provide the control and synchronization of a diversity of events in the context of shows or museographic installations. The use of our software responds to diverse applications requiring control of audio, video, lighting and MIDI equipment; synchronization using a variety of communications protocols; pneumatics, robotics and automation; voice recognition; motion and brainwaves tracking.

## FIRM HISTORY

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Founded by Paul Ahad, President, in 1989, Media-FX Inc. has developed projects around the world, collaborating with some of the most respected names in the worlds of museology and special events. The Company's list of clients and collaborators provides telling witness to the Company's accomplishments.

## PAUL AHAD

### ARTISTIC DIRECTOR, MULTIMEDIA AND SPECIAL EFFECTS DESIGNER

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Trained in Fine Arts, Photo, Cinema and Computer Sciences, at the University of Ottawa, Paul Ahad has been researching and experimenting with new technologies since the 1970s to create products that incorporate an amalgam of artistic productions, electronics, computers, robotics and engineering. His aim has been to push further the integration of technology and virtual reality into various art forms that include photography, motion picture, performance art, multimedia, sound and museography.

For over 30 years, production companies have relied on Paul Ahad for his competence and creativity in the development of multimedia presentations, special effects and interactive exhibits using state-of-the-art technologies, producing an unsurpassed level of human interactivity and sensitivity. He occupies the position of Media and Technologies Director but has also acted Designer, Producer, Director or Software Programmer in many of the Company's projects.

## CURRENT RESEARCH AND DEVELOPMENT

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- MFX WarpController:** A collection of show-control software for video projection synchronisation, image blending and warping.
- MFX Composer:** A collection of server/clients software for performing multi-layered 3D mapping.
- MFX Sahara:** A device for rendering standard video clips (AVI files) in a large sand box; the video image comes out of the sand.
- MFX Whisper:** A device for creating movements in hanging drapes as if someone's breath behind them was virtually making them move as they speak.
- MFX Prophecy:** Device for generating a thin curtain of cold water mist for use as a projection screen without increasing ambient humidity level in a closed environment.
- MFX Oracle:** Interactive system for speech and gesture recognition.

## CLIENT LIST

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### Canada

Cité Multimédia, Montreal  
City of Dorval  
Halifax Citadel, Halifax  
LG2 Communications, Québec  
National Capital Commission, Ottawa  
Maison Louis St-Laurent, Quebec  
McGill University, Montreal  
Moncton Cathedral, Moncton  
Montreal Biosphere, Montreal  
Montreal Botanical Garden, Montreal  
Montreal Science Centre, Montreal  
Musée de la nature et des sciences de Sherbrooke  
Museum of Civilizations, Quebec  
Parc historique de la Poudrière de Windsor, Windsor  
Royal 22<sup>nd</sup> Regiment, Quebec  
Seven Fingers, Montreal  
Trou de la fée, Desbiens, Quebec  
Village historique de Val-Jalbert, Chambord  
Zoo Sauvage de St-Félicien, St-Félicien

### Europe

Chamäleon Theatre, Berlin, Germany  
Cité de l'espace, Toulouse, France  
Circle of Eleven, Berlin, Germany  
Communauté des communes de Pouilly-sur-Loire, France  
Domaine Filliatreau, Saumur, France  
Europarque Visionarium, Porto, Portugal  
Parentville Science Centre, Brussels, Belgium  
Madeira Botanical Gardens, Madeira, Portugal  
Mairie de Saint-Andelain, France  
Museum of Sciences and Culture of Macao, Lisbon

### United States

EON Reality  
International Institute of Boston, Boston  
Loire Valley USA  
Mount Independence State Historic Site, Vermont  
President Calvin Coolidge Museum  
Prudential Center Skywalk, Boston  
State of Vermont

### Caribbeans

Arlington House Museum, Speightstown, Barbados.  
Nidhe Israël Museum, Bridgetown, Barbados.

## SCOPE OF WORK

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- Design, production and integration of interfaces and visual effects requiring the fusion of various technologies within a museum context
- Video and audio production
- Speech recognition
- Project management and supervision
- 3D software and audiovisual programming
- 3D AutoCad and SketchUp plans
- Design and fabrication of prototypes, mechanical systems and electronic and computer interfaces
- Pneumatic, hydraulic and electro-mechanical system automation

## MAJOR PROJECTS

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### **« Garden of Oddness », Montreal Botanical Garden, QC, 2022**

Design, development and integration of a multi-layered automated chromakey environment and various mechanical, pneumatic and hydraulic effects.

### **« Domaine de la Grande Vignolle », Saumur, France, 2020**

Design, development and integration of an immersive environment in the troglodyte site of the winery.

### **« Trou de la fée », Desbiens, QC, 2019**

Design, development and integration of an immersive environment mapping projection system.

### **« Jardin de Chine », Montreal Botanical Garden, QC, 2019**

Design, development and integration of various interactive stations.

### **« Cathédrale Notre-Dame-de-l'Assomption », Moncton, NB, 2015-2019**

Feasibility study, evaluation and production in the transformation of the cathedral into an immersive museological experience.

### **« Citadelle d'Halifax », Halifax, NS, 2018**

Design, development and integration of a multi-client « 3D-mapping » projection system onto a model of the Halifax Citadelle and 5 interactive stations allowing the visitor to explore the history of the site.

### **« Belvédère de Saint-Andelain », Saint-Andelain, France, 2015-2017**

Design, development and implementation of an interactive video capture system using a PTZ 4K-camera. Using a touch-screen monitor located on the ground floor, visitors control the camera located on the roof of the belvedere. The monitor also provides various information on to the aimed region.

### **« Montreal 360/365 », Montreal Biosphere, QC, 2015-2017**

Development and implementation for a panoramic capture of the skyline of Montreal and surrounding area over a one-year period for presentation at the Montreal Biosphere. The system used eight computer-managed 4K-cameras installed on the roof of the Levis Tower, located on the St-Helen island.

**« Our Lady of the Assumption Cathedral », Moncton, NB, 2015-2017**

Feasibility plans and evaluation for the transformation of the cathedral into an immersive museum.

**« Design the Future », Montreal Biosphere, QC, 2014-2015**

Development and implementation of a 22-projector/24 speakers, 360-degree immersive show using various special effects such as snow, wind and mist.

**« Mini Power Plant », Village historique de Val-Jalbert, Chambord, QC, 2014-2015**

Development and implementation of various exhibits on the topic of electrical power generation at the mill.

**« H14 », Site historique maritime de Pointe-au-père, QC, 2013-2014**

Development and implementation of various interactive exhibits depicting 1914's life and technology.

**« Traces », Les 7 doigts de la main, Montréal, QC, 2005-2014**

Production and programming of various video clips for an acrobatic dance show.

**« Du coeur à l'ouvrage; the Val-Jalbert Epic », Village historique de Val-Jalbert, QC, 2012-2013**

Development and implementation of a synchronised 13-projector multimedia show using various special effects such as snow, wind, fire and mist.

**Royal Canadian Legion, St. Lambert, QC, 2013**

Programming of various interactive exhibits.

**« Digital River », 18th World Congress on Information Technology, Montréal, QC, 2012**

Design, production and implementation of an interactive installation that allows visitors to interact with Canada's 4 seasons 100' x 25' canvas projected on the floor of the main hall.

**« Perfect Match », Musée de la nature et des sciences de Sherbrooke, QC, 2012**

Development and implementation of a live camera capture system that allows the visitor to notice the contribution of video in sports.

**« Du coeur à l'ouvrage; 3D Model Mapping », Village historique de Val-Jalbert, QC, 2011-2012**

Development and implementation of a client-based, multi-layer interactive projection system projection onto models of the installations and the mill.

**« More than Two Words », President Calvin Coolidge State Historic Site, Plymouth, VT, 2011-2012**

Design and development of the new interactive exhibit depicting the life and presidency of United States 30<sup>th</sup> President, Calvin Coolidge. Visitors can dig into hundreds of images and hours of speeches and newsreels using ten integrated workstations or query the President through a voice recognition installation.

**« Il était une fois... Terrebonne », Terrebonne, QC, 2011**

Motion graphics and touch-screen productions.

**« Empress of Ireland », Point-au-Père, QC, 2011-2012**

Design and development of the multi-screen HD show depicting the events surrounding the 1914 sinking of the Empress of Ireland off the coast of Pointe-au-Père.

**« Fabulous Flea Circus », LG2, Quebec, QC, 2011**

Design and development of the award winning "Fabulous Flea Circus" for Sears Optical; three motion triggered electro-mechanical devices for installation above urinals in men's rooms.

**Oratoire St-Joseph, Montreal, QC, 2011**

Programming of various graphics oriented interactive exhibits.

**Musée de la nature et des sciences de Sherbrooke, Sherbrooke, QC, 2009-2010**

Design and automation of the multi-screen HD show “Terra Mutantes”. This show themed on geology runs using the *Motion Tracking* of the 36 visitors seated around an interactive table. Special effects include programmed snow, wind, rain, earthquakes, odours and lighting.

**La Tour de Pouilly, Pouilly-sur-Loire, France, 2009-2010**

Design and automation of the multi-screen HD show “Le Pouilly-Fumé” themed on the wine production of the Pouilly-Fumé. Special effects include programmed heat, wind, rain, odours and lighting.

**« Love and chill at the Gun Powder Mill », Parc historique de la Poudrière de Windsor, QC, 2010**

Design and automation of the multi-screen HD show themed on the morbid history of the Windsor Mill gunpowder plant in the midst of the American Civil War. Special effects include programmed explosions, wind, heat, rain, odours and lighting.

**Communauté des communes de Pouilly-sur-Loire, Pouilly-sur-Loire, France, 2008-2010**

Design of a real-time system for automating capture and transmission of HD images. The HD camera was installed in a vineyard in Pouilly-sur-Loire for visualizing the growth of a vine over 4 seasons.

**Royal 22<sup>nd</sup> Regiment, Quebec, QC, 2008**

Design and programming of a large scale FTIR-based interactive model of the Quebec Citadelle. Video and animation production for the exhibits.

**« My Life », Circle of Eleven, Berlin, Germany, 2008**

Production of various video clips for an acrobatic-dance-circus show. Shot and edited in Berlin.

**Montreal Botanical Garden, Quebec, QC, 2008**

Programming of various interactive exhibits.

**« Traces », Seven Fingers, Montreal, QC, 2005-2008**

Production and programming of various video clips for an acrobatic-dance-circus show.

**« Imagine! », Montreal Science Center, Montreal, QC, 2005-2007**

Design and programming of various exhibits and special effects in the « Imagine » exhibit hall. Includes Mist screen; speech, movement and brain waves recognition.

**Arlington House, Speightstown, Barbados, 2005-2007**

Design, production and installation of various interactive exhibits and special effects on the topic of the history of the island, its people, slavery and plantocracy.

**Nidhe Israel Museum, Bridgetown, Barbados, 2006-2007**

Design, production and installation of various interactive exhibits and special effects.

**Caesar Twins – One in Two, Berlin, Germany, 2005-2006**

Design, production and programming of various special effects including real-time image processing.

**Green Roof of the Côte-des-Neiges Borough, Notre-Dame-de-Grâce de Montréal, QC, 2005**

Production of touch-screen exhibits.

**Europarque Visionarium, Santa-Maria-da-Feira, Portugal, 2004**

Upgrade of a multimedia presentation originally created in 1998.

**National Capital Commission, Ottawa, ON, Canada, 2006**

Technical feasibility study for the upgrading of the NCC’s Information Center in Ottawa.

**« Dreams of Freedom 2 », Prudential Center Skywalk, Boston, MA, U.S.A., 2004-2005**

Design, production, programming and Installation of various audiovisual exhibits on the 50th floor observatory.

**« Reader of Tombstones », Bridgetown, Barbados, 2004**

Design and production of videos for the Barbados Jewish Museum.

**« Brain Shaker », Montreal, QC, Canada, 2003-2004**

Design and production of an interactive DirectX9 and Direct3D exhibit named «Brain Shaker », consisting of video capture, real-time 3D transformations and chromakey over a synchronized 3D animation.

**Europarque Visionarium, Santa-Maria-Da-Feira, Portugal, 2004**

Feasibility study for the phased upgrade of the science center's show and interactive and audiovisual scientific exhibits.

**Madeira Botanical Gardens, Madeira, Portugal, 2004**

Feasibility study for the implementation of a moving-set audiovisual show and the production of interactive and audiovisual exhibits for a new botanical garden museum.

**« Gestured Memories », Paspébiac, QC, Canada, 2003-2004**

Design, production, programming and Installation of a high-resolution video presentation depicting the rise and fall of fisheries in Atlantic Canada.

**Borealium, St-Félicien, QC, Canada, 2002-2003**

Design, production and installation of an animated stage-set, rain, snow, wind, tactile, aroma and pneumatics effects for the indoor high-resolution video presentation.

**« Quebec All-Dressed », Musée québécois de la culture populaire, Trois-Rivière, QC, 2002-2003**

Audio-visual production and direction for various interactive exhibits. Main exhibit consists of an installation of 6 holo-videographic characters in discussion while seated around a diner table.

**« Parole de Peau », Museum of Civilizations, Québec, QC, Canada, 2002**

Design, production, programming and Installation of « 6.1 » audio environments. Designer of "Wind Whispers"® that allow the visitors to feel the air that accompanies speech.

**« Zzzz », Montreal Science Centre, Montreal, QC, Canada, 2002**

Design, production and programming of a real-time chromakey interactive exhibit for children.

**Parentville Science Centre, Brussels, Belgium, 2002**

Design, production and programming of a chromakey interactive exhibit that demonstrates various computer concepts such as imaging, sampling and data processing.

**Maison Louis St-Laurent, Québec, QC, Canada, 2002**

Design, production, programming and Installation of various computer-based audio visual exhibits.

**Cité Multimédia, Montreal, QC, Canada, 2001**

Software consultant for the implementation of interactive Touch-Screen kiosks.

**Dreams of Freedom, Boston, MA, U.S.A, 1999-2000**

Design, production, programming and Installation of an animated-set, multi-multi screen 26-minute multimedia Show and various interactive exhibits.

**Cité de l'espace, Toulouse, France, 2000**

Design and software programming for DVD based space travel simulators.

**Mount Independence State Historic Site, Vermont, U.S.A, 1999**

Design, production, programming and Installation of a holo-videographic sculpture with integrated rear projection and touch screen terminals.

**Office du tourisme de Tournai, Tournai, Belgium, 1998-1999**

Design and scripting of an automated 20-minute multimedia production depicting the history of the city of Tournai in Belgium.

**Europarque Visionarium, Santa-Maria-Da-Feira, Portugal, 1998**

Design, production, programming and installation of a 20-minute animated-set introductory multimedia-show and 63 interactive scientific exhibits.

**Europarque Image Centre, Porto, Portugal, 1997**

Production of 3 studies that required the analysis of 84 theme-park and amusement-park attractions located in Europe, North America, Asia and the South Pacific, that use new technologies. This study required the analysis all major image technologies available on the market. Following this research, a concept for an Image Center was developed.



## REFERENCES

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### **Montreal Botanical Garden**

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**« Garden of Oddness »**  
*Montreal Botanical Garden, 2022*



**« Domaine de la Grande Vignolle »**  
*Saumur, France, 2020*



**« Citadelle d'Halifax »**  
*Halifax, NS, 2018*



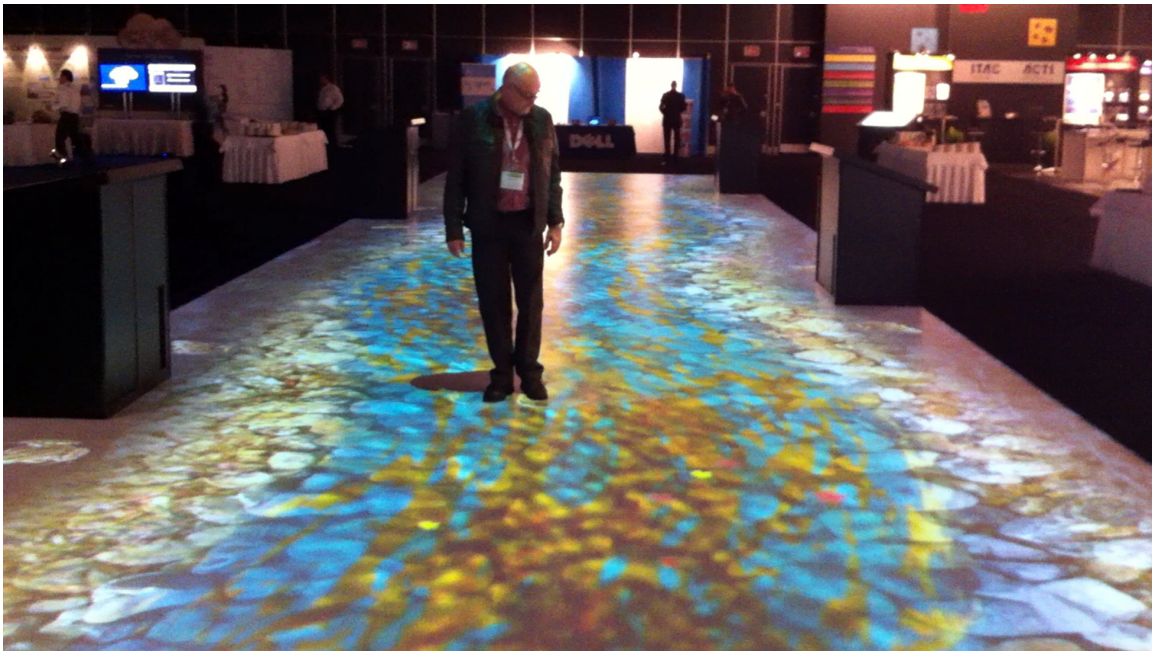
**« Belvédère de Saint-Andelain »**  
*Saint-Andelain, France, 2015-2017*



**« Montreal 360/365 »**  
*Montreal Biosphere, Montreal, 2016*



**« Design the Future »**  
*Montreal Biosphere, Qc, 2015*



**« Digital River »**  
*WCIT 2012, Interactive motion-tracking environment, Montreal, 2012*

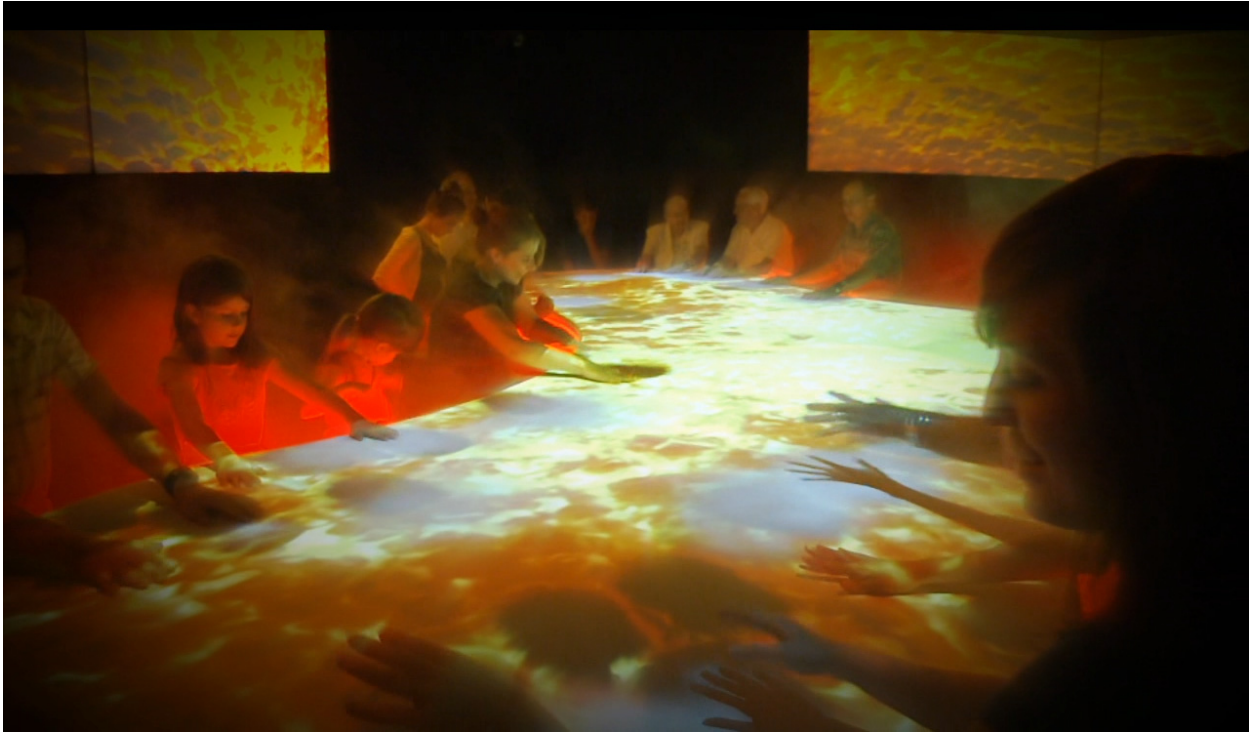


« H14 »

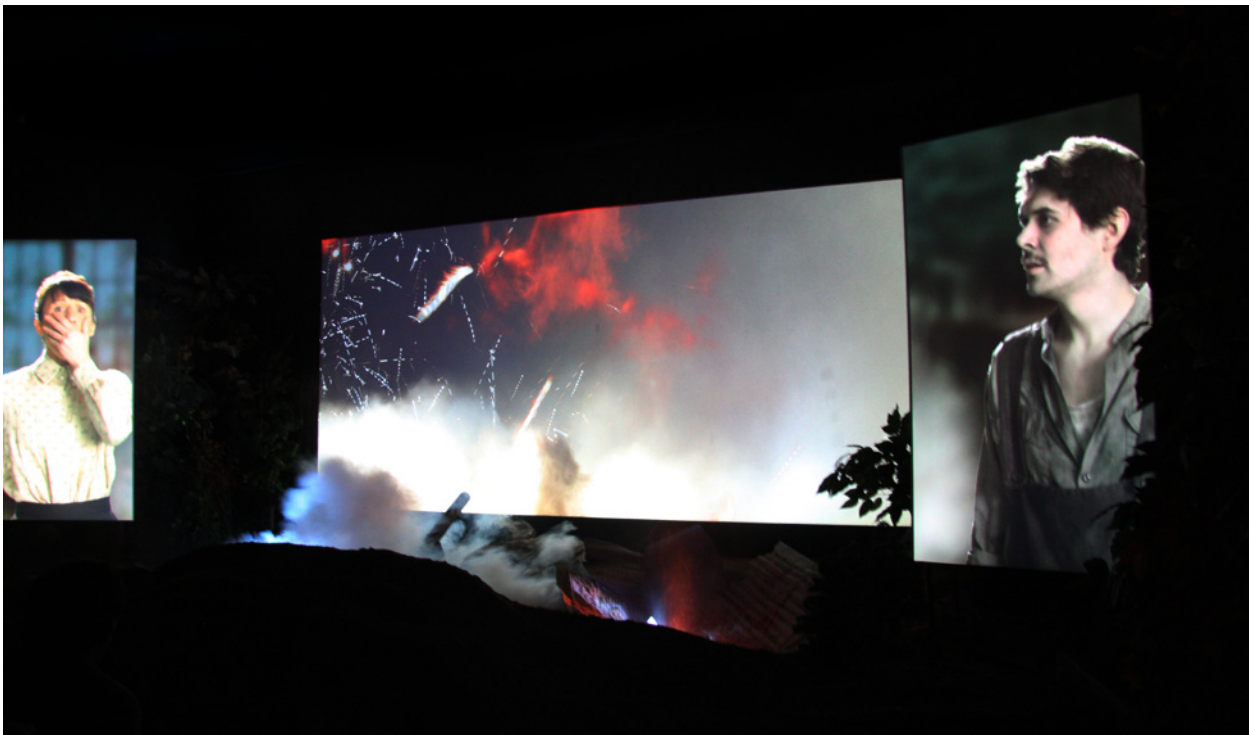
*Site historique maritime de Pointe-au-père, 2014*



**« More than Two Words »: The Life & Legacy of Calvin Coolidge,**  
*President Calvin Coolidge Memorial Museum, Plymouth VT, 2012*



**« Terra Mutantes », multi-sensorial show using Motion-Tracking**  
*Musée de la nature et des sciences de Sherbrooke, 2010*



**« Whispers », immersive presentation with animated set**  
*Parc historique de la Poudrière de Windsor, 2010*



**La tour du Pouilly-fumé**  
*Pouilly-sur-Loire, France, 2009*



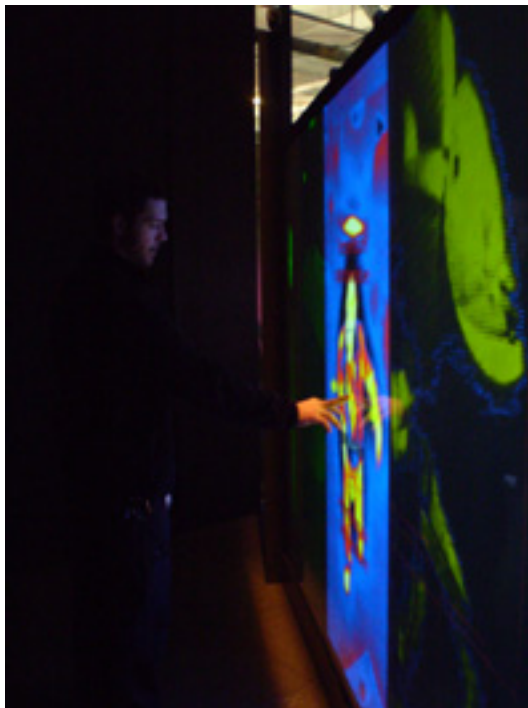
**« My Life »**  
*Circle of Eleven, Berlin, Germany, 2008*



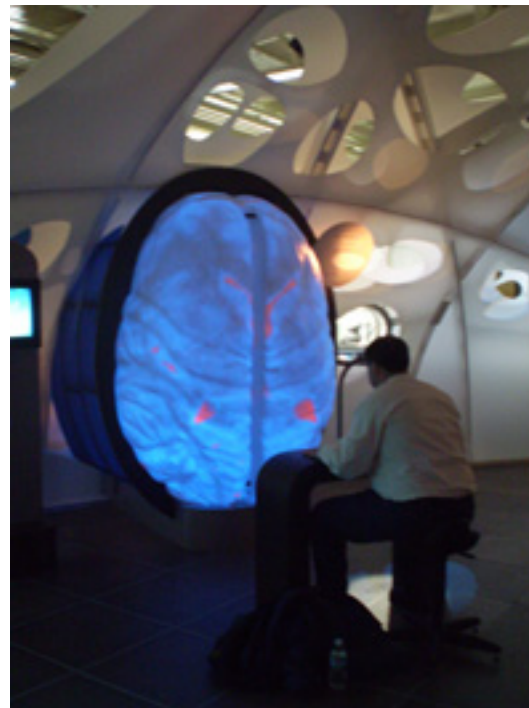
**Royal 22<sup>nd</sup> Regiment Museum**  
*FTIR 2' x 15' touch model  
resolution 800 x 3000  
Quebec, Canada, 2008*



**Montreal Science Center**  
*Mist screen  
Montreal, Canada, 2007*



**Montreal Science Center**  
*8' x 11' touchscreen  
Montreal, Canada, 2007*



**Montreal Science Center**  
*Interactive video et electromechanical using  
brainprobe.  
Montreal, Canada, 2007*





**Arlington House**  
*« Field Memories » Theater*  
*Speightstown, Barbados, 2007*



**Nidhe Israel Museum**  
*Multi-screen Video Production*  
*Bridgetown, Barbados, 2007*



**Dreams of Freedom, immersive presentation with animated set**  
*Boston, Massachusetts, U.S.A., 2000*



**Macao Science and Culture Centre**  
*Lisboa, Portugal, 2000*



**Mount Independence State Historic Site**  
*Orwell, Vermont, USA, 1999*



**« Terra Incognita », multi sensorial show with animated set**  
*Europarque Science Center, Santa-Maria-da-Feira, Portugal, 1998*