

# CODA

The finale of *The Rite of Spring*

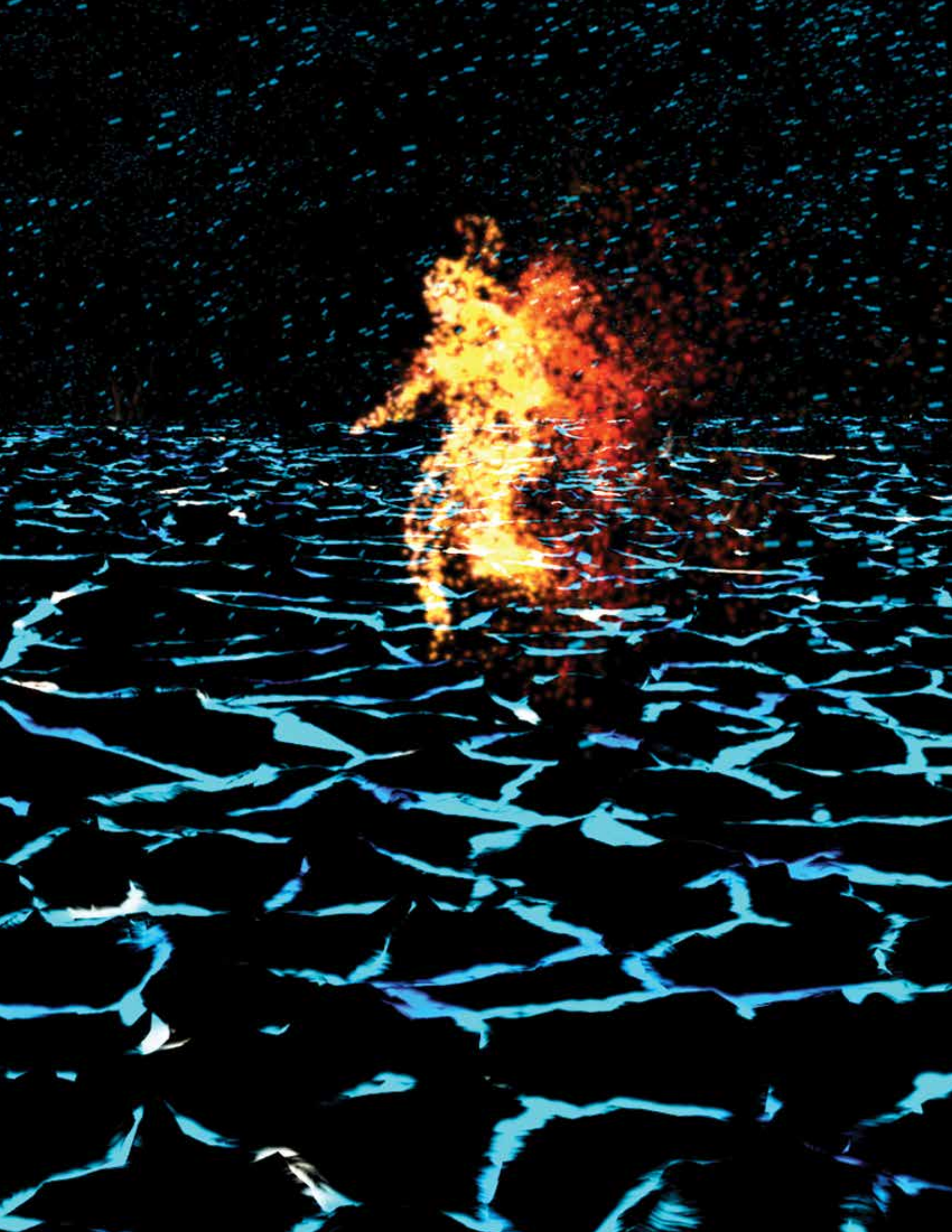
PRESS KIT

A film by Denis Poulin & Martine Époque

IN CO-PRODUCTION WITH THE NATIONAL FILM BOARD OF CANADA  
IN COLLABORATION WITH FAKE DIGITAL ENTERTAINMENT











# THE FILM

From the glittering ground slowly emerges a mass of moving particles. Several other—all alike—soon join the form, dancing as though luminous bodies in the infinite space of the cosmos. These precarious shapes constantly shatter, appear and disappear to the rhythms of the final transition of Stravinsky's *Rite of Spring*...

They now move in an ocean of light, sinking in the glow and reborn as reddish, then bluish creatures; they oscillate from one color to another while the matter transforms and slips away in columns of sparkling fire, flowing and bubbling lava, bursts of coloured glass, flying particles, and aerial smoke...

Designed in 3D and also available in 2D **CODA** draws on advanced digital technologies to offer a new vision of dance in cinema. Designers Denis Poulin and Martine Époque create virtual dancers free of their morphological appearance. They imagine a dance in which humans become dynamic footprints, carrying the motor signature of each one of the real dancers at the source of their movements.

With motion capture (MoCap) and particle processing, Denis Poulin and Martine Époque evoke nature and address environmental issues through metaphor by providing in a single gesture a contemporary reinterpretation of the *Rite of Spring*. From a bright cloud of particles a world is born—a universe that is also a digital stage wherein lurks the first dancer, whirling in the first environment... **CODA** is thus genesis and apocalypse, a demiurgic myth of the creation of the world, a fused universe where space and time collide, deploy, and dissolve.

# ABOUT THE DIRECTORS

## DENIS POULIN & MARTINE ÉPOQUE

PHOTO: MARTINE ÉPOQUE



PHOTO: DENIS POULIN



Filmmaker **Denis Poulin** (Ph.D. in Art Studies and Practices, Université du Québec à Montréal, 2013; M.A. in Cinema and Television, 1976, University of Michigan, Ann Arbor) was a dancer and choreographer before becoming a teacher of the art of dance at Collège Montmorency in Laval, where he founded the dance programs and Department of Dance in 1985, as well as a program of 3D animation based on human movement in 2007. He has been an associate professor in the Department of Dance since 2006. Fascinated by the art of dance on screen, Poulin has directed many films and videos intended to be shown on their own or as part of his choreographies for the stage or Martine Époque's multimedia works. He directed

*Le bouffe-pétrole* (1982) for the National Film Board of Canada after winning its inaugural Cinéaste recherchée competition. His dance film *SOLO* received the University of Michigan's Best Achievement in Cinematography award, and *Beyond Curtains*, produced by the NFB (1979), won the "Enta Maratone dei Templi Cup" at the Salerno International Film Festival in 1983.

An emblematic figure of the Quebec dance scene, choreographer **Martine Époque** was the founder and artistic director (1968 to 1981) of the renowned contemporary dance company Groupe Nouvelle Aire. As a UQAM professor from 1980 to 2007, she was the driving force behind the creation of its Department of Dance (1985), its master's program in dance and the Agora de la danse contemporary dance venue. Since 1972, Époque has created more than 50 dance works for stage and screen, many of which combine film or video projections with stage performances. She has been internationally recognized for her choreographic work, lectures and publications. A number of newspaper and magazine articles, as well as television programs, have been devoted to her work and career. Recipient of the Clifford E. Lee prize for choreography in 1983 and the Prix du Québec Denise Pelletier in 1994, Époque has devoted her energies to the art of "technochoreography" since 1989, and has been a professor emeritus at UQAM's Department of Dance since 2007.

## JOINT FILMOGRAPHY (DENIS POULIN, DIRECTOR, AND MARTINE ÉPOQUE, CHOREOGRAPHER)

- |         |  |
|---------|--|
| 2014    | <b>CODA</b> , the Finale of The Rite of Spring (11 min, mono and stereoscopic digital dance film).<br>Producers: NFB/LARTech. Partner: FAKE Studio.  |
| 2008    | <i>NoBody danse: Le prototype</i> (8 min. 45, mono and stereoscopic digital dance film, Blu-Ray).<br>Producer: LARTech.  |
| 2003    | Digital dance film for Époque choreography <i>Tabula rasa: La suite</i> (14 min). Producer: LARTech.   |
| 2001    | Digital dance film for Époque choreography <i>Tabula rasa</i> (10 min, Époque & Poulin, co-directors).<br>Producer: LARTech/Hexagram.  |
| 1990–98 | Videos for Époque dance works for the stage: <i>Je pars...</i> (digital 3D images, 1990);<br><i>L'autel sauvage</i> (analogue images, 1992); <i>Les funambules</i> (digital 3D images, 1993);<br><i>Trou noir, trou blanc</i> (analogue images, 1996). |
| 1990–92 | Videos for Poulin dance works for the stage: <i>Passages</i> (digital 3D and analogue images, 1992),<br><i>Côté Jardin</i> (digital 3D images, 1991), <i>Gê</i> (digital 3D and analogue images, 1990).  |
| 1990    | <i>Espace Infochorégraphique 1</i> , digital 3D videodance.  |
| 1989    | <i>Étude Infochorégraphique</i> , digital 3D videodance.   |
| 1989    | <i>Des pas dans l'encrier</i> , video introducing Collège Montmorency's dance program.   |
| 1982    | <i>Vivre à 2</i> , analogue videodance (38 min). Producer: Danse Actuelle & Martine Époque.  |
| 1982    | <i>Le bouffe-pétrole</i> , animation and fiction short film. Producer: National Film Board of Canada.  |
| 1978–79 | <i>Beyond Curtains / Ni Scène, Ni Coulisses</i> , short dance film, 35 mm. Producer: National Film Board of Canada.  |
| 1976    | <i>Zones and Offstage</i> , short dance films, 16 mm. Independent production.  |
| 1975    | <i>Solo</i> , short dance film, 16 mm. Selected by the Ann Arbor Film Festival, Michigan, 1976.  |



## TWINMUSE

Originally from Iran, twin sisters **Hourshid** and **Mehrshid Afrakhteh** have been Ph.D. students in Arts Studies and Practices at UQAM since 2011. They regularly perform as solo and duo pianists under the name **TwinMuse**. They gave extremely successful concerts at the Chapelle historique du Bon-Pasteur in Montreal at the invitation of conductor Miklós Takács, as well as at the Oscar Peterson Concert Hall and the Fête de la Musique au Mont-Tremblant, under the artistic direction of Angèle Dubeau.

## PRODUCERS MARC CÔTÉ (FAKE DIGITAL ENTERTAINMENT)



Marc Côté, who holds a master's degree in robotics, is the award-winning founder of the group Camera E-Motion. He has helped develop motion control systems that allow the camera movements required for high-end visual effects. He has also worked on films like *Immortals* (2011), *300* (2006), *The Fountain* (2006) and *The Aviator* (2004).

In 2000, he founded the visual effects company Fake Digital Entertainment with the firm intention of exploiting the full potential of the images he shoots.

Since then, Marc has had a hand in producing visual effects and providing post-production services for many features including Jean-Marc Vallée's films: *Wild* (2014), *Dallas Buyers Club* (2013), *Café de Flore* (2011), *The Young Victoria* (a period drama produced by Graham King, Martin Scorsese and the Duchess of York Sarah Ferguson and released in 2009) and *C.R.A.Z.Y.* (the biggest box office success for a Canadian film in 2005).

In March 2012, he won his first Genie Award for visual effects for his work on *Café de Flore*.

In 2014, Marc and several partners launched the animated series *Les aventures de Bakko et Gante*. The series relies on a revolutionary real-time-engine production technique created by Fake. This technique, along with digital cameras and MoCap, was used to film *CODA, le final du Sacre du printemps* (2014).

## RENÉ CHÉNIER (NFB)



**René Chénier** served as Executive Producer at the National Film Board of Canada's French Animation Studio from 2006 to 2014. Under his leadership, the Studio produced over 70 animated short films, and since 2012, it has garnered 122 awards at Canadian and international festivals. While heading the Studio, René strived to expand its involvement in international co-productions. He has recently been appointed the NFB's Executive Producer, Special Projects.

Earlier in his career, René independently produced the award-winning musical fantasy *Hugo and the Dragon* (Philippe Baylaucq, 2001) and collaborated on the production of several other fiction feature films, including *The Necessities of Life* (2008) by Benoît Pilon, which received several awards and was a semi-finalist for Best Foreign Language Film at the Oscars.

In 2010, René produced *Impressions/Glimpses*, a short film created especially for the prestigious World Expo in Shanghai, where it was shown on a huge semi-circular screen at the Canada Pavilion, offering audiences an immersive cinematic experience. A true man of the cinema, René also stands out for having produced several films in 3D, including *ORA* (Philippe Baylaucq, 2011) a short film about dance, choreographed by José Navas. *ORA* is the first film in the world to have been shot using infrared cameras and carries Norman McLaren's tradition of painting with light into the 21st century. *ORA* has been widely acclaimed and received numerous awards, including the 3D Creative Arts Award at the Autodesk 3D Independent Short Film Competition of the International 3D & Advanced Imaging Society in Los Angeles in February 2013. René Chénier's most recent production, **CODA** (Denis Poulin and Martine Époque, 2014), has been selected for the 2014 edition of the Toronto International Film Festival.



# FILMMAKERS' NOTES, BY DENIS POULIN AND MARTINE ÉPOQUE

## ORIGINS OF THE PROJECT

**DENIS POULIN:** I started in dance in 1968, and at the time I was also doing photography—and I quickly grew interested in filmmaking. I did a master's degree in communications at the University of Michigan, and while I was there I directed three dance films, which I sent to Norman McLaren. He liked them enough to pass them on to producer Marc Beaudet, who immediately offered me a contract. That's how I came to direct *Beyond Curtains*, my first film at the NFB. It was released in 1978, and was based on choreography by Martine.

I wanted to pursue this path, but it was very difficult to find funding for dance films. I continued to dance myself, and also taught dance and used video projection during dance shows. Martine and I even started a video dance program at Université du Québec à Montréal (UQAM). Around 1990, I started doing dance animation using 3D software, but it was not really sophisticated enough. Nonetheless, I still managed to make a small film using that technology. Things really started to move in 2000, with the arrival of motion capture (MoCap). We had been following the evolution of the technology, and when MoCap arrived it offered tremendous possibilities.

**MARTINE ÉPOQUE:** I should also say that there was an important turning point for us in 1988, when I decided to quit the professional dance scene after becoming involved with the UQAM dance program. It gave me the means to explore dance and to perform research. I left behind organizations that funded dance in favour of those offering research grants. That's how we wound up going from video dance to technochoreography, to MoCap—and how we came to develop a film based on the idea of dance without bodies.

## TECHNIQUE

**D.P.:** When you do MoCap, you go from a person represented through polygons to one covered by an envelope. This envelope is the virtual person's body. It could be anything from a small penguin to Captain Haddock... though obviously that's not the direction in which we wanted to go. Our idea was to visualize dance in the most abstract way possible. That's how we came to imagine people composed of particles of light.

Early on, I did some tests. The software tutorial led me to fill a glass with particles, and depending on their characteristics, they would react differently to falling out of the glass. I thought that what was true of the glass and particles would also be valid if I took the polygonal body as the vessel and did not create a skin for it. This would mean that the body would remain invisible—a transparent vessel—and would only take shape through its interaction with the particles.









## TECHNOLOGY EMPLOYED

Because motion is the core of a dancer's identity, Denis Poulin and Martine Époque wanted to capture movements beyond the limits of the skin. To do so, the designers shot **CODA** using a motion capture (MoCap) system, from which resulted polygonal characters that accurately represented the dancers' movements. However, rather than making computer-rendered characters covered with a skin texture, Denis Poulin and Martine Époque associated them with particles. The particles interacted with each movement based on the physical characteristics attributed to them—characteristics that differed in each chapter of the film. The particles thus enter and leave the body, fly in the wind or slip on surfaces like a liquid. This way, **CODA** offers a reinterpretation of movements, focusing on a more universal representation of the body in motion.





Having established that, we had to find a variety of ways to emit and constrain the particles. That's when we met Vincent Fortin, a real particle artist who had the necessary technical expertise. He was an essential part of bringing our research to life.

**M.É.:** We first had this idea of dance without bodies in 2004. Thanks to a grant from SSHRC (Social Sciences and Humanities Research Council), we created a prototype in 2008. It allowed us to recognize that what was most interesting about the material we were capturing wasn't its corporeal aspect—lines, mass, bodies—but the energy. So from 2008 to 2010 we compiled what we called a Digital Collection of Signature Movements from different dancers. We used MoCap to record 13 well-known Quebec dancers, including Louise Lecavalier and Marc Boivin, and created a game which we made available on our website. We thought of then cloning them using avatars, but after thinking it over we decided not to go that route.

**D.P.:** A dancer's identity is found in movement. The dancer's body is the vehicle, but it is not their true signature. When we tried to clone, it felt as though we were usurping their identity. By eliminating the body completely, we approach a state of dance that I would call pure. It's like looking at something through a microscope—we see the object differently. That's what we wanted to do with the tools we had available: lead the viewer to see dance differently.

## RITE OF SPRING

**M.É.:** It's a long-standing love affair: it was one of the last pieces I choreographed professionally, and Denis was one of the three soloists. We went all the way to the cultural section of the Calgary Olympics with that show, and were even invited to go to China—which was interesting, since my *Rite* tells the story of a dictator overthrown by the people.

Later, one of my doctoral students told me that two twins were doing a Ph.D. in music on *The Rite of Spring*. That's how we came to meet Hourshid and Mehrshid Afrakhteh, who play the music in **CODA**.

At first, we'd had the crazy idea to do the entire *Rite of Spring*.

**D.P.:** We revised our thinking after talking it over with people from the NFB. They helped us understand that a film with a 33-minute running time was not suitable for broadcast, and that we would either have to make a film that was shorter or one that was longer. Doing a kind of "making of" to extend the length of the film didn't really excite me, especially since it would make an already heavy process even heavier. So we decided to scale the project back to 10 minutes, concentrating on the finale. In musical terms, a coda is a reprise of certain phrases that have already been heard. It can be a sort of summary of a piece. It was in that spirit that we approached the last nine minutes of *The Rite of Spring*—as a summary of the principal tableaux.

# CODA

*The finale of The Rite of Spring*

A film by

**Denis Poulin & Martine Époque**

in co-production with the  
National Film Board of Canada

Producer

**René Chénier**

in collaboration with

**FAKE DIGITAL ENTERTAINMENT**

Producer

**Marc Côté**

Executive Producers

**René Chénier**

**Marc Côté**

**Martine Époque**

**Denis Poulin, Ph.D.**

Particles Artist

**Vincent Fortin**

Technical Director and MoCap Operator

**Pierre-Luc Boily**

Digital Dance Design

**Martine Époque**

Dance Motion

**Martine Époque & Frédéric Gravel**

Dancers

**Brianna Lombardo**

**Robert Meilleur**

**Frédéric Gravel**

**Séverine Lombardo**

Music

**Igor Stravinsky**

Piano

**TwinMuse**

**Hourshid & Mehrshid Afrakhteh**

Music Recording and Editing

**Manuel Marie**

Musical Rights acquired from

**Boosey & Hawkes New York**

## **NFB TEAM**

Executive Producer

**René Chénier**

Sound Design

**Benoît Dame**

Re-recording

**Jean Paul Vialard**

Music Mixer

**Geoffrey Mitchell**

Artistic Advisors

**Philippe Baylaucq**

**Janice Nadeau**

**Oana Suteu**

Administrator

**Diane Régimbald**

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**Daniel Lord**

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**Département de danse de**

**l'UQAM**

**Université du Québec à**

**Montréal**

**Collège Montmorency**

## **FAKE DIGITAL**

### **ENTERTAINMENT TEAM**

Executive Producer

**Marc Côté**

3D Producer

**Chantal Bédard**

VFX Supervisor

**Marc Côté**

Technical Director

**François Painchaud**

Animators

**Heston L'Abbé**

**Aulo Licinio**

**Maxime Lepage**

**Virtual Camera**

**Adam O'Brien**

MoCap Operator

**Mélissa Gouin Lachance**

Editing

**Martin Tremblay**

**Philippe Desrosiers**

**FAKE**  
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## **CODA**

French Program

French Animation Studio

National Film Board of Canada

[www.nfb.ca/animation](http://www.nfb.ca/animation)

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