QUANTUM

Choreography Gilles Jobin

Dance Catarina Barbosa · Ruth Childs
Susana Panadés Díaz · Stanislas Charré
Martin Roehrich · Denis Terrasse

Lumino-kinetic installation
Julius von Bismarck

Music Carla Scaletti

Costumes Jean-Paul Lespagnard

CIE FOR THE DEVELOPMENT OF CHOREOGRAPHY
GILLES JOBIN

QUANTUM

QUANTUM **is the result of an artistic residency in the largest particle physics laboratory in the world: CERN in Geneva. During his residency at CERN, Swiss choreographer Gilles Jobin learnt that we were all but stardust floating in space, that gravity was the weakest force in the universe–a real shock for a contemporary dancer whose work often focuses on contact with the ground–and got to meet the rising star of visual arts, German artist Julius von Bismarck.**

Under the flag of the Higgs boson, their encounter was a high-energy artistic collision indeed. Artists in the midst of scientists, the choreographer and the visual artist eagerly immersed themselves into a universe of numbers and abstractions for several months before going back to Berlin and Geneva respectively to continue working on the highly sophisticated QUANTUM**–an ode to particle physics for six dancers–and finally joining up to combine their respective work in situ.**

For New Settings, supporting the artists on this journey was an exhilarating experience. Both faced the same challenge of injecting physicality into abstraction, the choreographer who related his own vision of movement to the physicists' principle of 'deconstruct-and-scale' and the visual artist who, with the help of renowned researchers at CERN, devised an impressive light-activated sculpture.

Consisting of four lamps swinging in a constant circular motion, the installation highlights the main laws of physics and responds to imperceptible fluctuations resulting from some meticulous programming that follows the choreography; the lamps and the dancers delving into the mysteries of antimatter, and the mix of visual and choreographic arts succeeding wonderfully in dressing the laws of physics in a veil of beauty.

Brigitte Jais for The Hermès Foundation (Fondation d'entreprise Hermès)

CREATIVE COLLISIONS

In 2013, Gilles Jobin began rehearsing for his new creation QUANTUM –the result of a 3-month artist-in-residency programme at CERN dubbed Collide@CERN. Jobin included physicians Michael Doser and Nicolas Chanon in the creative process, inviting them into his dance studio. Together they discussed fields, waves and quarks, strong interaction and preferential direction, particle behaviour, extra dimensions, Feynman diagrams and symmetry and sought to build a common language between particle physics and contemporary dance with the idea to develop what Jobin calls 'movement generators'.

During his artist-in-residency programme, Jobin got to meet up with German visual artist Julius von Bismarck, the first laureate of the Collide@CERN Ars Electronica Award. This encounter triggered an unexpected creative collision and today Julius von Bismarck's light-activated installation Versuch Unter Kreisen, which he devised during his own residency at CERN, serves as a lighting device and stage prop for QUANTUM.

The music for QUANTUM is the result of another creative collision between Jobin and American composer Carla Scaletti, who used real data from the LHC to create a soundtrack. The physicists often talk of the Higgs boson as a '125 GeV resonance', and Carla Scaletti's electronic music evokes those colliding high-energy particles, their interaction with the Higgs field and their resonance. The final collision: Jobin teamed up for the first time with Belgian stylist Jean-Paul Lespagnard for the creation of the costumes.

Jobin hoped to create QUANTUM at CERN, in particular at the emblematic site of the CMS experiment, where the famous Higgs boson was uncovered. An artistic and scientific journey, devised by Gilles Jobin and the CMS team, complemented the performance at CERN, which included some meetings with artists and physicists, a screening of Peter Mettler's film The End of Time, and an exceptional visit (330 feet below ground!) of the LHC, which usually remains closed to the public.

TOUR

September 23 to 26, 2013 Théâtre Forum Meyrin at CERN / Geneva - Switzerland
September 27 to 29, 2013 CERN Open days / Geneva - Switzerland
November 4 to 8, 2013 New Settings #3 / Théâtre de la Cité Internationale / Paris - France
January 14, 2014 Bonlieu Scène nationale / Annecy – France

CIE GILLES JOBIN FOR THE DEVELOPMENT OF CHOREOGRAPHY

GENESIS OF A CREATION

The Unknown is the starting point for the creativity of both artists and scientists. It is by encountering the unknown, that we truly discover, create and think anew. Collide@CERN artists residency programme was initiated and is directed to do precisely that – to give selected artists the time and space with experienced producer support to encounter the unknown, which in this case is the exotic world of particle physics at CERN.

With dance, quite often, the basic research is mixed with the production. Theory coming before research is not something we're used to. Like I said in my closing lecture, **I'm a choreographer, I do 'theory' and 'experiment' together.** For the first time in my career, I was fortunate during this residency to have some time set aside for fundamental research. It then felt obvious to me that I should move on to the experimental stage in order to know whether I could apply the theory.

You know, physicists are masters of abstraction… And this was my opportunity to devise a totally abstract piece. Never had I considered such abstract and counterintuitive concepts, relating to such existential matters as the existence of matter itself. For several months, I immersed myself in a world with a high level of expertise, and which brought together passionate scientists from all over to study the origins of the universe thanks to the LHC–the most complex machine ever devised by human beings–which produced heaps of data, offered in open source to the scientific community. Surprisingly, I felt comfortable in the midst of all these scientists, so meticulous in their descriptions of our world's phenomena, so pragmatic and precise and so passionate about their research. […]

I remember a presentation given by a well-known physicist, Luis Alvarez Gaume, who told me about 'scales'. It was essential for me to understand that some things can only be observed on their own scale. It is a very simple idea, but for me that was the gateway. Also the idea of working with many unknown quantities. Nevertheless, the problem wasn't so much getting trained in physics but rather knowing where and how to start my own choreographic project. Thankfully, the researchers around me shared in the same energy. I blended into the laboratory, like another scientist at work. **My aim was to find 'movement generators', principles underlying movement and emanating from quantum physics, which I could adapt on our scale.** […]

I'm interested in several principles, in particular the essential forces, which all happen to be 'non-contact' forces. Matter is 'held' together without 'touching'. **We are not piles of matter, but matter assembled through tremendous forces.** Our bodies are made of stardust, like a cloud hovering above the surface of the earth, held together by a subtle balance of quantum forces. For a contemporary dancer, trained to work with the ground and used to contact and realness, it's a whole new paradigm…

So, movement is a sequence of 'connected' actions, but with no contact. I also worked on issues relating to symmetry. There is plenty of symmetry in physics and I've began to understand that the notion of space goes beyond the relation of the body with its surrounding space, but that there are plenty of species of spaces with which to work.

I'm interested in Feynman's diagrams to generate the dancers' movements, but also in the passion with which Richard Feynman approached science.

When you talk about the phenomena that CERN recreates with its particle accelerator, the LHC, i.e. to recreate the energetic circumstances present in the universe a few milliseconds before the Big Bang, you can't help asking yourself some deep existential questions… **I feel like I've gone from 'figurative abstraction', a term that some have used to describe my work, to 'existential abstraction'.** […]

Gilles Jobin, 23 June 2013
Extracts from Stéphane Bouquet's interview for the Théâtre de la Cité Internationale Paris in the frame of the Fondation d'entreprise Hermès New Settings programme.

COLLIDE@CERN

Collide@CERN explores elements even more elusive than the Higgs Boson – human ingenuity, creativity and imagination. It is CERN's new experiment in arts and science: a 3-year artist's residency programme initiated by the laboratory in 2011 designed to take artistic work to new creative dimensions by encountering particle physics.

Every year, artists compete to win Collide@CERN awards which comprise prize money and a fully funded residency for up to 3 months at CERN. The winning artists are matched with a special science inspiration partner, give public lectures at the Globe of Science and Innovation, and interact and engage with CERN scientists by making interventions in the laboratory.

There are two Collide@CERN awards every year. The first is in digital arts and the annual competition is held with CERN's cultural partners, the digital arts organisation, Ars Electronica, Linz. The first award was made to the rising star of the contemporary art world, the german artists Julius von Bismarck. The second strand is Collide@CERN Geneva, which celebrates Geneva as an important place for both the arts and science - past, present and future as well as Geneva's unique role in the founding of CERN in the 1950s. The award marks CERN's 3 years cultural partnership between the City and Canton of Geneva who fund the award, and every year changes art forms.

Some of the greatest artists working today are creative patrons of the Collide@CERN project: Swiss architect Jacques Herzog, Japanese artist Mariko Mori, German photographer Andreas Gursky, British sculptor Antony Gormley, wildlife artist Frans Lanting, and Swiss video artist Pipilotti Rist. Collide@CERN is one of the main strategies of another CERN first – its Cultural Policy for Engaging with the Arts: Great Arts for Great Science, adopted in 2010.

CREDITS

Created at CERN September 23 to 29, 2013 in collaboration with Collide@CERN, CERN CMS Experiment, Théâtre Forum Meyrin.

Choreography : Gilles Jobin
Dance : Catarina Barbosa, Ruth Childs, Susana Panadés Díaz, Stanislas Charré, Martin Roehrich, Denis Terrasse.
Lumino-kinetic installation : Julius von Bismarck / Engineer : Martin Schied
Music : Carla Scaletti / Interprétation en direct : POL
Costumes : Jean-Paul Lespagnard / Costumes assistant : Léa Capisano
Scientific advisors : Michael Doser, Nicolas Chanon (CERN physicists)
Technical direction : Marie Predour
Administration and production : Mélanie Rouquier
Administration and production assistant : Cornélia Wagner Jiménez
Accounting : Yves Bachelier

Production Cie Gilles Jobin - Geneva

With the support of :

FONDATION D'ENTREPRISE HERMÈS DANS LE CADRE DE SON PROGRAMME NEW SETTINGS
FONDATION LEENAARDS
FMC Fondation Meyrinoise du Casino
Loterie Romande
ERNST GÖHNER STIFTUNG

In collaboration with:

THÉÂTRE FORUM MEYRIN
Collide@CERN
CMS

Cie Gilles Jobin is supported by the City of Geneva, the Canton of Geneva and Pro Helvetia Swiss Arts Council.

VILLE DE GENÈVE
REPUBLIQUE ET CANTON DE GENEVE
prohelvetia

Gilles Jobin is associated artist at : Bonlieu scène nationale / scène nationale Annecy

Gilles Jobin and Julius von Bismarck have both been awarded Collide@CERN 2012 prizes. QUANTUM is developed out of the Collide@CERN artists residencies. Julius von Bismarck's installation Versuch unter Kreisen has been developed out of the Ars Electronica Collide@CERN artist residency and was exhibited for the first time at Festival Ars Electronica in Linz, Austria, in September 2012.

Thanks to : Rolf Heuer, Ariane Koek, Michael Hoch, Austin Ball, Christoph Schaefer et toute l'équipe de l'Expérience CMS, James Gillies, Paola Catapano, Lily Asquith, Victor Roy, Théâtre du Galpon, Peter Mettler, Luis Alvarez Gaume, CERN Dancing Club, Joao Pequenao, Julian Calo.

www.gillesjobin.com

Contact : Cie Gilles Jobin - Rue de la Coulouvrenière 44 CH-1204 Genève T +41 22 331 00 50 - compagnie@gillesjobin.com / © Conception & réalisation : Mélanie Pelletier / LABOMC3 2013 - melp.contact@gmail.com