Workshop

THÉÂTRE DE LIÈGE

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Lighting up a show using gravity

9 February 2023 | Liège - Belgium | SAFRAN AEROBOOSTER SABLAB

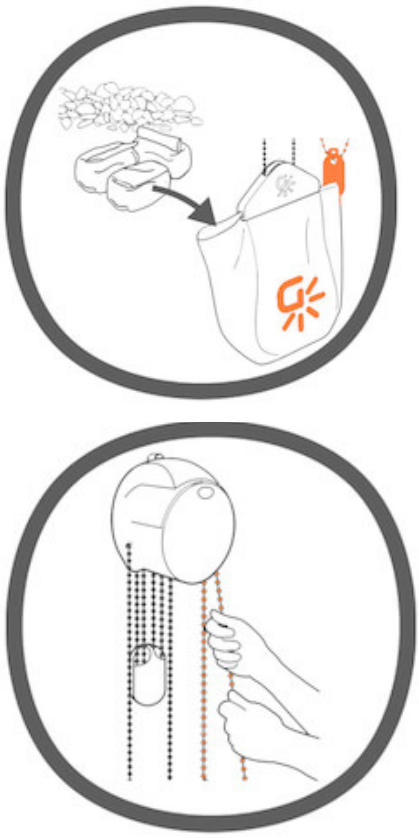
WORKSHOP CONTENT

This workshop brought together the artistic team of the Venedig Meer company involved in the preparation of the show "L'Invisible n'est pas inexistant" (The invisible is not non-existent) and engineers from SAFRAN, a company specialising in aeronautics. It was held at the SABLAB, an internal ideation laboratory set up by SAFRAN as part of its innovation policy. This laboratory is dedicated to the experimentation of various projects.

The artistic project of the Venedig Meer company involves highlighting the so-called invisible phenomena that govern our world, including gravity, immaterial resources and the links that are forged between individuals. The aim of the show "The invisible is not non-existent" is twofold: to make gravity visible by exploiting the energy it produces to light up the stage and to create a new lighting system based on gravity that reduces the electricity consumption necessary to create a show. The objective of this workshop was to imagine the best gravity-based device to be created to produce enough energy to light the show, without using electricity. This prototype will then be made available as open source and can be exploited by others.

This exploration was inspired by the "Gravity Light", a lamp that works thanks to kinetic energy, i.e. thanks to its weight set in motion. In concrete terms, the device is equipped with a pulley with a bag filled with pebbles on one side and an LED on the other. To activate the system, the user pulls up the bag, whose weight, as it slowly descends, produces energy that provides 20 to 30 minutes of light.

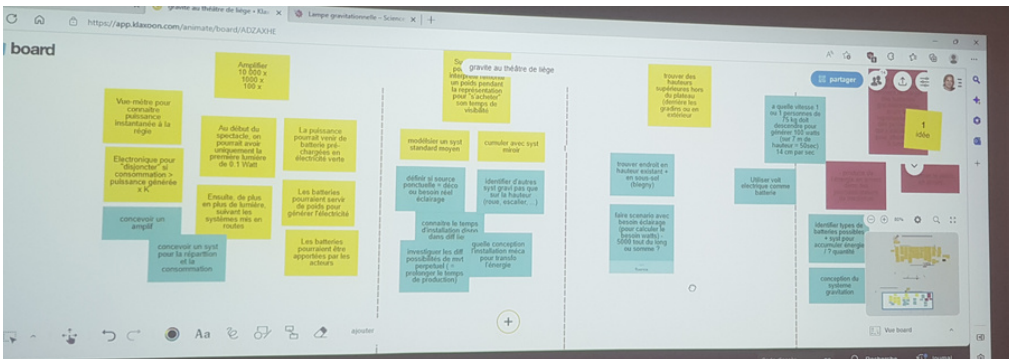
During the workshop, the teams considered the various possibilities for adapting such a device to the needs of the stage. This is an important issue, given that 500kg must be raised to a height of 7 metres to generate 80 watts for 7 minutes.



SOURCE: DECIWATT

Several questions were raised:

- *What weight should be used? The weight of the spectators, the actors, the sets, various objects...*
- *Which system should be used? Raising the weight of the projectors several times per show, using a trampoline, charging a water balloon, using an amplifier, storing energy in a battery before the show by involving the spectators, taking the device out of the theatre to have a greater height.*
- *How to reduce the need for electricity? Use daylight, reflect existing light, adapt the staging, play in the dark...*



PICTURE 1 – THE VIRTUAL BOARD COLLECTING IDEAS

Following this workshop, the Venedig Meer company chose to work on a system using a balloon inflated with 500kg of water, raised and lowered to a height of 7 metres. A prototype of this device now remains to be produced.

BIOGRAPHY OF THE ARTISTS:

FLORENCE MINDER: CO-DIRECTOR OF THE COMPANY VENEDIG MEER, AUTHOR, ACTRESS AND DIRECTOR. RESPONSIBLE FOR FICTION, LINKS AND SHARING

JULIEN JAILLOT: CO-DIRECTOR OF THE COMPANY VENEDIG MEER, DIRECTOR OF ACTORS, DIRECTOR, DRAMATURGE. CREATION COORDINATOR

MANON FAURE: CO-DIRECTOR OF THE COMPANY VENEDIG MEER, ADMINISTRATIVE AND FINANCIAL MANAGER, PRODUCTION STRATEGIES

YORRICK DETROY: TECHNICAL DIRECTOR

AMÉLIE GÉHIN: LIGHT DESIGNER

BIOGRAPHY OF THE SCIENTISTS:

JEAN-CLAUDE NOBEN: SENIOR CONSULTANT AT SIRIS

VINCENT DURÉE: DIRECTOR OF INNOVATION, SAFRAN

NICOLAS RAIMARCKERS: SAFRAN INNOVATION MANAGER

CATHERINE LOUIS: INNOVATION PROJECT MANAGER AT SAFRAN

UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS (SDGS) LINKED TO THE WORKSHOP

STAGES
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