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Por Julia Sánchez Aja / Desirée Vargas Vargas

Dialogues between circus and science is a project carried out by Julia Sánchez Aja, Artist, Creator and Project Manager. The project brings together artists, pedagogues and scientists with the aim of developing new learning environments for young people, proposing a methodology for creation and bringing the public closer to the work and life of the artist by linking circus, art and science.

Dialogues between circus and science includes 3 main lines of action: a handbook, a creation and an exhibition resulting from the two previous investigations. Desirée Vargas was initially in charge of setting-up the exhibition scheduled for the 2020 edition of Periplo Festival, however, due to the current sanitary emergency it was decided to adjust the project to the current format in order to show some of the works carried out for this exhibition, and hopefully invite everyone to experience on site this beautiful project in its entirety later in the future.

The exhibition seeks to bring the public closer to the experimental forms of art and science that the artist experiences during the creation process. It also aims to provide an interactive space, a non-linear experience, which can be installed in any public space, museum, tent, etc. The viewer is invited to actively capture the work and experience specific concepts of physics such as friction¹, pendulum², motion³, gravity⁴, center of mass⁵ and energy⁶ through performative painting and the search for other discourses through art.

The exhibition arises from an interpretation of the circus artist's environment, his resistance⁷ to permanence, the trajectory⁸ that builds him up, and shows us the transcendence of the objects and the emotional attachment they acquire over time. The exhibition presents the flying rope and along with it the concepts of physics that are immersed in this technique and make them the starting point for the research on circus and science. The exhibition goes deeper into the complexity and experiences



Linoleum plates from the series of 5 engravings.
Mechanism / to be. Portrait of the object

¹**Friction=FF** : The resistive forces that arise to oppose the motion or attempted motion of an object past another with which it is in contact

²**Pendulum**: A body suspended from a fixed point so as to swing freely to and fro under the action of gravity and commonly used to regulate movements (as of clockwork)

³**Movement**: Change with time of the position or orientation of a body. Motion along a line or a curve is called translation. Motion that changes the orientation of a body is called rotation. In both cases all points in the body have the same velocity (directed speed) and the same acceleration (time rate of change of velocity). The most general kind of motion combines both translation and rotation.

⁴**Gravity**: The universal force of attraction acting between all matter. It is by far the weakest known force in nature and thus plays no role in determining the internal properties of everyday matter.

⁵**M-Mass**: The quantity of matter in an object, or concentrated energy. More specially the measurement of the inertia or sluggishness (drag) that an object exhibits in response to any effort made to start, stop, or change in any way its state of motion

⁶**Energy=E**: The property of a system that enables it to work.

⁷**Resistance**: An opposing or retarding force.

⁸**Trajectory /isplacemnet**: Distance moved by a particle or body in a specific direction.

that this technique provokes to then gradually reduce it and work only with transversal concepts that touch every human being. To this end, we collected interviews, notes, sketches, objects with symbolic charge, experimental improvisations of movement and audio sources that give birth to multidisciplinary pieces made from a combination of languages, such as engraving, embroidery, auditory universes, video dance, performative painting, installation and object art.

Dialogues between circus and science highlight traditional techniques, such as engraving, in which Mexico excels. This technique was chosen because it gives us the possibility of producing continuously, modifying the stamp and capturing its symbolic content through an inked portrait and thus ensuring its permanence in time. The series consists of 5 engravings which approach displacement and technology emerging from the object, the plastic artist based her work on the elements that illustrate concepts like friction, pendulum movement and resistance.

An interactive piece was also created together with the spectator: through music and specific movement instructions they express concepts such as trajectory, gravity, friction and pendulum movement. Each concept is developed onto a canvas using materials such as paint, charcoal and greasy pastels. The concept of energy⁹ is used as a transversal one, that is, the change from a Kinetic energy¹⁰ body to a potential¹¹ one. This piece invites the audience / artist to try to move according to the given concept. Some suggestions are thus given in order to accompany their actions and reactions to sound and body interactive experience, auditory state and body exploration.

For Gravity¹², objects of different shapes and weights were used. They were inked and released from different heights showing themselves and leaving a mark on the paper, allowing them to illustrate the interaction with which these two objects act according to gravity and its force.

This exhibition space gives us the opportunity to meet with interactive pieces such as trajectory. It is defined as a described line or route followed by someone or something while moving from one point to another. This work intermittently projects a geographical map on an embroidery that traces the migratory route of the circus artist from 2008 to 2018, which can eventually be linked to bird migration and their vital need to “be” to return to their roots.

The tour is accompanied by many series of sound environments and visual materials that place the viewer in a specific moment of the artist's work and creative process.

Dialogues between circus and science is a project that can be reproduced in multiple different contexts and with different actors. The objective is to show that from theoretical concepts, it is possible to propose new learning environments, and investigate new languages of creative and corporal dimension.



Acrylic on kraft paper. Gravity



Embroidery on fabric.
Trajectory / resistance to permanence

⁹**Energy= E:** The property of a system that enables it to work.

¹⁰**Potential:** Stored energy that depends upon the relative position of various parts of a system.

¹¹**Kinetic:** Form of energy that an object or a particle has by reason of its motion.

¹²**Center of Gravity:** The average position of weight or the single point associated with an object where the force of gravity can be considered to act; usually identical with center of mass (compare weight).