

Press Release

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CAPTURE: LIGHTNINGS TURN INTO SCULPTURES

Artistic work by Judith Fegerl at the AIT shows fantastically shaped fulgurites (lightning tubes)

Vienna (AIT): Viennese artist Judith Fegerl has created sculptures in the high-voltage laboratory of the AIT Austrian Institute of Technology with the help of artificial lightning. The branched tubes of melted and resolidified sand - called "fulgurite" - as well as lightning rods activated by electric shocks are now on display in the main building of the AIT.

"You can't see it, you can't hear it, and to a certain extent you can't feel it either: nevertheless, electrical energy is the basis of our modern, technologised life - with everything that comes along with it, from environmental issues to security of supply to energy saving," explains Viennese artist Judith Fegerl, who is currently Artist in Residence at the AIT Austrian Institute of Technology. As part of the ARTTEC programme, she is now showing the sculpture "capture", which was created in close cooperation with the AIT Center for Energy: Fegerl simulated lightning in the high-voltage laboratory and uses the artistic results to make the immense potential that lies in energy comprehensible.

"With our ARTTEC programme we show how many similarities there are between art, technology and science. This broadens our perspective - not only of our employees, but also of our guests at the Giefinggasse site," says Prof. Wolfgang Knoll, scientific director of the AIT.

Thousands of volts and tens of thousands of amps

In the summer of the Corona Year 2020, Judith Fegerl took a carload of materials to the AIT's high-voltage laboratory, where electrical systems are normally tested for safety. There, the artist sent surges of thousands of volts and tens of thousands of amperes - comparable to lightning in nature - through various types of sand, sometimes mixed with aggregates or filled into fireclay cartridges. Moreover, lightning rods from demolished apartment buildings in Vienna received violent electric shocks. "Shapes and properties have changed due to the energy that has been invested. The material has reorganised itself under the influence of energy and objects have been created," Fegerl explains.

Lightning is more than light and thunder

When lightning strikes in nature, very strong electrical currents rush down from the sky within a few milliseconds. The high energies released in the process are not only noticeable in the flashes of lightning and the resounding thunder. This is also evident at the impact site, which heats up to 30,000 degrees, causing tube-like structures of molten and resolidified sand to form in the ground. These so-called "fulgurites" (lightning tubes) can be several metres long and branch out into fantastic shapes. "Here, in a spontaneous emergence from energy, a structure is created - an artefact in which the energy manifests itself," says Judith Fegerl. For many years she has been

dealing with the subject of energy and its many manifestations and effects - energy is her preferred material.

Fantastic forms

The artistic result of the work in the high-voltage laboratory can now be admired in the foyer of the AIT headquarters (Giefinggasse 4, 1210 Vienna) in the installation "capture". Both the fulgurites, which were cast in synthetic resin for the purpose of stabilisation and better clarity, and the activated lightning conductors, which are sculpturally framed, show fantastic forms in which the gigantic potential of lightning is inscribed. "Ultimately, the energy itself has produced forms, it has expanded or manifested itself sculpturally within certain parameters," says Fegerl. This way, viewers can also comprehend the power that is hidden in a violent spark discharge. "The spectacle of the lightning strike demonstrates itself in a different form - in a way that is no longer dangerous, but still very powerful."

The installation "capture" can be seen in the foyer of the main building of the AIT Austrian Institute of Technology (Giefinggasse 4, 1210 Vienna). Due to Corona, a visit is currently only possible by appointment (michael.h.hlava@ait.ac.at).

About the person: Judith Fegerl

Judith Fegerl, born 1977, studied visual media design, digital art, and new media in Vienna. After living and working in Berlin and New York, she has been living and working in Vienna since 2011. Her artistic work focuses on the symbiotic connection between man and machine. Many projects are closely related to energy, which manifests itself in her works. Fegerl is currently "Artist in Residence" at the AIT, where she already realised the installation "reservoir" in 2020. Fegerl's works have been shown at Kunsthalle Wien, 21er Haus, Taxispalais Kunsthalle Tirol, heldart Berlin, Atelierhaus Praterinsel Munich, Kunsthaus Glarus, Austrian Cultural Forum in New York, Landesgalerie Niederösterreich in Krems, Jewish Museum Vienna, Kunsthalle München, LENTOS Kunstmuseum Linz and Galaxy Museum Chiong Ping (China), among others.

<http://judithfegerl.net/>

ARTTEC and the Artist in Residence activities of the AIT

Since 2016, ARTTEC, the art programme of the AIT Austrian Institute of Technology, has regularly demonstrated at the Alpbach Technology Talks how many commonalities there are between art, technology and science. The AIT cooperates with partners such as Ars Electronica Linz, the MAK - Museum of Applied Arts and the University of Applied Arts.

ARTTEC has also been taking place at the AIT's new location since autumn 2018: As part of the Artist in Residence activities, international artists are invited to illuminate AIT research topics artistically in creative processes. The results are presented in interdisciplinary exhibitions in the foyer of the AIT headquarters at Giefinggasse 4 (1210 Vienna). Under the name ARTTEC at AIT, these will broaden the perspective of AIT staff and guests at the location.

The first artist in residence at the AIT was Berlin mixed-media artist Chris Noelle, who thematised the constant changes in society and technology with the help of spirography under the title "Deceleration" and realised the video project ONE at the same time. Currently, the Viennese artist Judith Fegerl is Artist in Residence, who deals with the topic of energy.

ARTTEC Project Team

AIT Austrian Institute of Technology:

Michael H. Hlava - Head of Corporate and Marketing Communications;

Silvia Haselhuhn, Martin Kugler, Daniel Pepl - Corporate and Marketing Communications

Curated by art:phalanx:

Clemens Kopetzky, Suzanna Futterknecht and Selina Kainz

Artist in Residence:

Judith Fegerl, Gallery Hubert Winter

About the AIT Austrian Institute of Technology

With more than 1400 employees, the AIT is Austria's largest research and technology organisation and, together with its partners, conducts research and innovation in key technologies for the future. The AIT supports the economy and society in particular in the areas of digitalisation, decarbonisation and other challenges of climate change. The focus is on the areas of energy, mobility, health and bio-resources, digital security as well as automation.

Press contact:

Mag. Michael H. Hlava

Head of Corporate and Marketing Communications

AIT Austrian Institute of Technology

T +43(0) 50550-4014 | F +43(0) 50550-4000

michael.h.hlava@ait.ac.at | www.ait.ac.at

Silvia Haselhuhn, M.A.

Corporate and Marketing Communications

AIT Austrian Institute of Technology

T +43(0) 50550-4831

silvia.haselhuhn@ait.ac.at | www.ait.ac.at