(Learning) The Grammar of the Act

examines and reflects on the structure and use of the medium of painting in relation to contemporary technological innovations. Methods of human expressiveness and manners of visualization of information in the post-digital age are the key focus of the works comprising the exhibition. Space brings together several collaborative works that varyingly employ robotic technologies, motion tracking, video, printmaking, and painting. As a whole, this body of works investigates the relation between organic practices and machine-based systems, both of which are used to create structures from physical actions (operation) and from the mind (perception).

A mini e-David robot is positioned in the center of the exhibition and continuously generates calligraphicoriented paintings. The data for the robot's brushstrokes are generated from analysis of the visitors' movements in the space, captured using a camera and a custom motion-tracking software (developed by Antonin Sulc, member of Prof. Bastian Goldlücke's group). As they enter the exhibition space, individual visitors' movements are captured by the video camera, and their location and movement are translated into a digital trajectory that is projected on a large, transparent black screen. The individual trajectories are translated into brushstrokes painted by the robot on a long rice paper roll, which is advanced by a paper feed. At the end of each day, the roll is fully painted with different calligraphic lines describing the movement of visitors throughout the space. These are hung in the gallery space on custom-made frames functioning as evidence and testimony of each of the days the exhibit runs.

Video compositions, done in collaboration between Grayver and the video artist Marcus Nebe, utilize close-up footage made of the ink and paper interacting, offering intriguing temporal perspectives on the material's response and impact on the act of painting. The fragility of the ink-infused rice paperwork in particular stands in sharp contrast to the industrial robot used to create them. As with Japanese calligraphy (the reference is obvious and undeniable), the brush trajectories and the ink's behavior as it penetrates the surface are here of several magnitudes more important than the perception of the object itself.

Liat Grayver

is a cross-disciplinary painter and media artist, investigating methods to redefine one of the primitive forms of art – painting – within the current technologybased era. Grayver studied at the Academy of Fine Arts Leipzig (HGB) master's degree (Diplom) in painting and printmaking under Heribert C. Ottersbach. In 2018, she completed her doctoral studies (Meisterschülerin) in Media Art under Joachim Blank at the HGB. Since 2016, Grayver has been collaborating with the University of Konstanz on the e-David project, exploring various approaches to integrate robotic and computer languages in the processes of painting and creative image-making. Gravyer is based and working in Berlin. \rightarrow liatgrayver.com

The e-David painting robot,

invented at the University of Konstanz by Prof. Oliver Deussen and currently being developed by Marvin Gülzow, is a pioneer project in this field and was one of the first to use a visual feedback system. The possibility of visual feedback brings up many questions within the contemporary discourse on machine learning, artificial intelligence, and robotic creativity. The name E-David stands for "Electronic Drawing Apparatus for Vivid Image Display". → e-david.org

Marcus Nebe

eceived his diploma of fine arts in 2015 at the Art Academy of Leipzig in the class of Helmut Mark (media art). His works can be found in public and private collections. In the last decade, he has shown his works throughout Germany and in international exhibitions. He lives and works in Leipzig and Berlin. → marcusnebe.com

Mid-Exhibition Event May 16, 2019

Talk

17–18 Movement Computing to Model a Class of Visual-Art Productions *Prof. Dr. Frederic Fol Leymarie and Daniel Berio* Goldsmiths University of London, Department of Computing

> Reception 18-20

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