## In Memory and Honor of Alexandre Vitkine, 1910–2014

Alexandre Vitkine began his career as an engineer, and then in the 1960's after sharpening his skills in photography he became a master photographer. Early on he formed strong friendships with master photographers such as Robert Doisneau and Willy Ronis among many others. Alexandre developed a very personal style for reducing his imagery to absolute black and white prints with no gray tones. His vision was to convert real scenes into strict graphic abstractions emphasizing shapes by outline rather than forms with shadows. His preference was for the deserted industrial landscape. As a photographer his aim was to simplify his images by focusing on uncluttered forms. He adhered to this aesthetic vision in his future sculptural works. In the mid 60s, he uses his technical knowledge to hack oscilloscopes and television monitors in order to obtain visual signals that he can then photograph. With colored filters in 1967 he created an animated film, frame-by-frame, entitled "Chromophonie" accompanied by a musical composition created by Alain Dubois. In 1968 Vitkine was invited to display his work in the famous exhibition "Cybernetic Serendipity" in London as a pioneer

of electronic arts. He continued working in the

electronic arts until the late 1980s. Alexandre



invented the concept of "infosculpteur" by using a computer to generate mathematical curves that produced, layer-by-layer, 3-dimensional shapes. He built his early designs using CNC milling machines, first with the help of various partners from schools and labs and then later on his own. Once he mastered the skills necessary to control the CNC process he installed a machine in his own studio. In 1995, wishing to control the entire process, Vitkine wrote his own computer software-drawing program and the program to control the milling machine. Some of his software was also used for additive manufacturing (3D printing) machines.

In 1990 Alexandre met Christian Lavigne in an art & technology show in Paris, and they discovered they had several activities and objectives in common. Noting that digital sculpture was unknown to the artists and public, they decided to create the Ars Mathematica non-profit association for the purpose of educating the public about digital sculpture by the end of 1992. They organized the first international exhibition exclusively dedicated to digital sculpture by May of 1993 at the Ecole Polytechnique, the event became a regular art show under the name of INTERSCULPT. Since this time, Ars Mathematica has supported and



held events to bring artists, engineers and scientists together.

Vitkine is one of the very few French pioneers of digital sculpture who produced his own sculptures and engravings using software that he developed. These sculptural works are a continuation of his formal artistic research toward harmony and simplicity, sparseness and clarity, in order to achieve a kind of universal essence recognizable to by all human beings.

-Christian Lavigne, 2015