OÖ LANDES-KULTUR GMBH

PRESSEINFORMATION

● 12.05.22, Francisco Carolinum Linz

● Herbert W. Franke - the pioneer of computer art and science fiction author turns 95.

First NFT drop on Quantum and exhibition at the Francisco Carolinum, the Museum of Photography and Media Arts in Linz (UNESCO City of Media Arts since 2014).

- **Universal genius and forefather of media art Herbert W. Franke celebrates his 95th birthday on 14 May 2022.**
- **With the exhibition VISIONARY, the Francisco Carolinum in Linz, Austria shows his path from pioneer of computer art to mastermind of the Metaverse to artist and curator in the Metaverse Active Worlds in 2008.**
- **Herbert W. Franke is the first pioneer of computer art to publish a series of 100 NFTs on Quantum, one of the leading NFT platforms, on 1 June 2022. The proceeds will go towards the establishment of the foundation "art meets science - Stiftung Herbert W. Franke".**

On the occasion of the 95th birthday of computer art pioneer Herbert W. Franke on 14 May 2022, the Francisco Carolinum in Austria is honouring his life's work: The Francisco Carolinum in Linz, UNESCO City of Media Arts since 2014, is presenting an extensive solo exhibition entitled VISIONARY until 16 June. On 1 June, Herbert W. Franke will be the first pioneer of computer art to publish a hand-curated selection of 100 NFTs from his MATH ART series on Quantum, one of the leading NFT platforms. Franke, known as a universal genius, holds a doctorate in physics, is the forefather of computer art, co-founder of Ars Electronica, mastermind of the Metaverse and the "most prominent German science fiction author" (Die Zeit).

The artist

The Austrian Herbert W. Franke spent his life exploring new territory and consistently looked into the future of digital art for over 70 years like hardly anyone else, until he arrived in the metaverse as an artist and curator in the early 2000s. A computer artist from the very beginning, he experimented with generative photography in 1953, used an analogue computer from 1954 and the first mainframe computers for his abstract algorithmic art from the 1960s. In 1970, he was represented at the Venice Biennale with a silkscreen from his QUADRATE series. It is his first work created with a digital computer, in which he already let chance work together with an algorithm.

As early as 1957, under the title KUNST UND KONSTRUKTION (F. Bruckmann), he proved that technology "opens up undreamed-of new artistic territory". In 1978, he also dealt with the change of art and technology on almost 140 pages in his book KUNST KONTRA TECHNIK? (S. Fischer), he dealt with the interaction between art, science and technology. "The art-technology problem has been discussed for several decades without having succeeded in reaching a common denominator," he wrote at the time.

The reactions when he became active on Twitter on 8 March 2022 showed how current and influential his work and writings, his visions and thoughts are, especially today, when digital art now stands alongside the classical media of painting and sculpture due to the high interest in NFTs. Within 24 hours, 10,000 people followed @HerbertWFranke's account, his first tweet received over 15,000 likes and over 2,000 retweets.

The exhibition HERBERT W. FRANKE - VISIONARY at the Francisco Carolinum

Herbert W. Franke's writing career and artistic work began in the late 1940s deep underground in the caves of Europe. He first explored numerous large caves, including those in the Dachstein massif, and remained active into old age. As a theoretical physicist, he dealt with the formation of stalactite caves, but also with questions of cybernetics and with processes of perception, which led to his rational theory of art. In addition to numerous technical and non-fiction books, he wrote award-winning science fiction books. The Herbert W. Franke Archive at the ZKM Karlsruhe contains a total of 1,800 manuscripts.

His life and extensive oeuvre are based on the rationality of the researcher and the creativity of the artist. The exhibition HERBERT W. FRANKE - VISIONARY is dedicated to this extraordinary bridge between art and science and the enormous power of imagination - from art to science fiction literature, from mathematics to cave exploration.

The exhibition of 26 works and series is divided into four thematic areas and shows how Franke, from the early 1950s to the present day, has decisively shaped the future of digital art as an artist and theorist.

1. **The Beginnings: Art as Experiment**
2. **Chance: The computer as a partner**
3. **The Problem: The Natural Scientist as Art Theorist**
4. **The mastermind: artist and curator in the metaverse**

The Beginnings: Art as Experiment

Herbert W. Franke was always looking for known or even newly discovered mathematical principles to use in his experiments in art. For Franke, it was clear that it was the artist's task to examine new technologies with their great social significance for their creative potential. For they should "not be the preserve of technocrats, commerce or even the military".

As a theoretical physicist, Franke experimented with electron-optical experiments, i.e. with light phenomena, as part of his dissertation. It became obvious to him that the medium not only illuminates scientific contexts, but can also be used to create images of high aesthetic impact. Franke began to construct abstract pictorial worlds analytically with light graphics. His early works inevitably led him to the question of the underlying aesthetic principles. While the ordering principle of symmetry was already of great importance in classical painting at that time, he introduced continuity as a new mathematically formulable principle in aesthetic observation - experimenting with light waves that could only be fixed by photography. Steady lines and curves as well as waves and oscillations show a smooth course without interruptions or kinks. Early on, the speleologist Franke recognised that this continuity is of great importance for natural growth processes, as it is for dripstones.

His early works have light experiments on continuity at their centre. The series DANCE OF ELECTRONICS makes oscillation forms calculated with the help of an analogue computer visible on an oscilloscope. While these continuous light graphics were created entirely synthetically, Franke used the natural principle of continuity for the series BANDSHAPES. In preparation, transparent foil strips were bent and twisted, and finally their two ends were glued together to create a closed band. When released, the ribbon in this "closed" form automatically assumes the lowest-energy, i.e. steady, state due to its natural elasticity.

Franke extended his artistic experiments from analogue computers to other machines, such as X-ray equipment, microscopes and record players, as early as the 1950s. In 1974, for his FARBRASTER series, he used the first colour plotter available in Germany in the medical-technical research laboratory of the Siemens company for artistic experiments, as well as one of the world's first software programmes for digital image processing available in the laboratory, which led to the EINSTEIN DIGITAL series of images, one of the earliest works of computer art, which were created interactively on a computer with the help of picture processing and then photographed from a monitor.

In the same year, when he was able to work with one of the world's first real-time systems on a black and white screen, he used the system that was then being developed for the interactive development of circuit diagrams. One of the world's first real-time computer films, entitled ROTATIONS / PROJECTIONS, was made on this device in 1974.

In 1980, he acquired one of the first apple IIs available in Germany, with which he created moving, interactive graphics in the same year. In the 1980s, he also used one of the first programmes for growing crystals in DEC's development labs and even experimented with a Braille copier during this time, before he began experimenting with the then newly developed Mathematica programme from the 1990s onwards, using it to develop numerous programmes for the interactive study of scientific and aesthetic phenomena.

Chance: The computer as a partner

Herbert W. Franke saw mathematics, with its abstract world of formulae, as the essence of visual art since its beginnings in the 1950s. While he saw the artist in the role of the analytical creator who creates structures with mathematical methods, he assigned the computer the task of modulating these principles of order through varying random processes. Franke therefore saw the computer in the role of a partner early on.

In 1967, Herbert W. Franke developed a digital code himself for the first time: the basic-programme for QUADRATE. He designed the flow chart, which was implemented in Fortran by the communications engineer Georg Färber. Even then, he deliberately used the randomness generated by the computer, thus handing over part of the design process to the machine, to which Franke already attributed the role of a partner rather than that of a tool in his 1957 book KUNST UND KONSTRUKTION.

The artist contributes the analytical process of structure formation and thus becomes more and more a constructor of aesthetics, while the computer becomes creative through random processes. At the same time, the underlying code of all possible images thus moved into focus, no longer the realisate of a single image.

The Problem: The Natural Scientist as Art Theorist

"People tend to dismiss technology as an element hostile to art. I will try to prove that it is not, and that it even opens up undreamed-of new artistic territory.

- Herbert W. Franke, Art and Construction, 1957

As a theoretical physicist who was fascinated by the principle of interaction in systems, he also dealt with questions of cybernetics at an early stage. He was particularly interested in questions of the connections between perceptual processes and art, which he published in the 1960s in the reference book KYBERNETISCHE ÄSTHETIK. His model of aesthetics described art as a construct that can be grasped with the help of information theory.

With his experiments in information psychology, Franke is considered a pioneer of information aesthetics today. He has passed on his far-sighted theoretical ideas as well as his experience as a pioneer of algorithmic art to students, among other things, in many years of teaching at the University of Munich and at the Academy of Fine Arts in Munich.

On the occasion of the opening of the exhibition, a panel discussion took place on the topic THE POTENTIAL OF DIGITAL IN ART - THEN AND NOW. The internationally recognised pioneer of crypto art Kevin Abosch answered the question of why it took so long for the artistic work of Herbert W. Franke to be recognised as visionary by the general public:

"*I have wondered why it took so many decades for generative artists, and Herbert W. Franke in particular, to reach the so-called traditional art world and the public. There seemed to be a disconnect between generative art / computer art and traditional methods. At first I thought maybe it had something to do with the fact that it took us decades to develop an intimacy with technology. We all walk around with mobile phones. We have computers. But soon I realised, no, it's not that, because in fact most people have no understanding of how these devices work anyway.*

We have to create emotional bridges. Many academics, the artists themselves, the brave institutions at the time that decided to show some of these works, and the curators tended to intellectualise the art, which is perfectly fine. They looked at art in a scientific way. Many of the discussions were held in such a way that people felt excluded.

If you look at the work of Herbert W. Franke and a handful of others, just a handful of other artists, you notice the breadth of work, the obsessiveness and the scientific approach to exploring new technologies. People may have had access to this technology, but they weren't as prolific and curious as Fanke. It took a long time to understand the emotional value of his work, which exists. We are dealing with a divide. You don't do justice to artists like Herbert W. Franke to deny this emotional conversation about art."

Herbert W. Franke's most important writings in the field of art theory: Kunst und Konstruktion (1957). Art versus Technology? (1978). The Phenomenon of Art (1967). Phenomenon Art. The Cybernetic Foundations of Aesthetics (2nd expanded edition - 1974), Cybernetic Aesthetics - Phenomenon of Art (3rd expanded edition - 1979). Aesthetic Information (together with H. G. Frank - 1997).

The mastermind: artist and curator in the metaverse

The Z-Galaxy is another pioneering achievement by Herbert W. Franke with his foray into a new world: even before Second Life, Franke, together with Susanne Päch, opened a three-dimensional exhibition area on the Active Worlds platform in 2008.

"Thus there are fantastic possibilities for art, whereby the artist becomes a creator who, if he wants, changes the basic laws of physics in addition to landscapes and architecture. He creates worlds in which he floats weightlessly, makes himself invisible or walks through walls - and he can take his audience into these worlds.

In principle, our world could also be cyberspace. But that can neither be proven nor disproven." - Herbert W. Franke, The Future Machine, 2010

Franke made his breakthrough as a recognised author in 1960 with his first published literary work DER GRÜNE KOMET. The story collection appeared in a series with which Goldmann Verlag presented the Anglo-American version of science fiction for the first time in Germany. In 1976, his novel "Ypsilon minus" was published by Suhrkamp Verlag as the second volume of the then newly conceived Fantastic Series.

Many works were translated into numerous languages and also published in the then Eastern Bloc, including the GDR. Hans Esselborn, professor of literary studies and co-editor of the edition of Franke's works currently being produced: "Herbert W. Franke imagined the political, social, scientific and literary developments after the Second World War in his texts. There is practically no text by the author in which the computer or artificial intelligence does not play a role. Franke describes the manifold possibilities of using computers with their social and psychological consequences. In the process, technology is shown in its ambivalence: from the development of perfected surveillance to synthetic, digitally thinking beings as antagonists of humans. Franke's work stands for the further development of the static political dystopias of the 20th century from Zamyatin to Orwell and for the introduction of the computer to control society and to simulate reality up to its own virtual worlds."

The literary mastermind of the Metaverse also realised this in the mid-2000s. At that time, together with his wife Susanne Päch, he began to look into the 3D[1] platform of Active Worlds. Unlike Second Life, where building blocks could be assembled using the Lego principle, Active Worlds offered the possibility, attractive to Franke, of embedding his own programmed elements in the virtual world. Franke and Päch were able to rent the 40,000 square metres of World Z-Galaxy for an annual rent of around one hundred dollars.

For the Z-GALAXY, Franke constructed building structures and synthetic plants using the Mathematica programming language - exclusively on the basis of mathematical formulae. He then embedded these virtually constructed objects in the Z-GALAXY and displayed his own works and sculptures on the open-air site and in the exhibition halls. In 2008, he further developed Z-GALAXY into an exhibition site where he no longer only showed his own works in the metaspace, but also works by artist friends such as the constructivist Eugen Roth, the space artist Andreas Nottebohm and a virtual sculpture by Derrick Woodham.

The Z-GALAXY can be visited via download of the Active World Browser.

The NFTs: 100 NFTs from the MATH ART series on Quantum

On 1 June 2022, Herbert W. Franke will be the first pioneer of computer art to publish 100 self-curated NFTs from his MATH ART series on Quantum Art, one of the leading platforms for digital art and photography.

The 100 NFTs are available in a Dutch Auction: The price drops starting at 1.25 ETH, at 0.25 ETH the auction stops.

In 1980, Herbert W. Franke began a fifteen-year collaboration with the programmer Horst Helbig from an institute of the German Aerospace Centre. They investigated mathematical formulae and disciplines in relation to their aesthetic dimension, which resulted in the extensive MATH ART series. The results of their research at the interface between science and art reveal the fascinating world of a mathematics that has become a picture, with a surprising wealth of forms that is strongly reminiscent of Pop Art.

The colour served to encode certain structural elements and was of elementary importance. The computer system at DLR in Oberpfaffenhofen, which was powerful at the time, had integrated output equipment with which the digitally developed image worlds were transferred directly onto high-resolution photographic film. Franke designed the preliminary work for the captivatingly colourful aesthetics of this mathematical research on his own DOS PC.

In the beginning there were algebraic formulas for three-dimensional spatial surfaces: The three dimensions were converted into two-dimensional landscapes, whereby the "contour lines", i.e. the z-axis of the space, were colour-coded with specially developed colour grids. Starting with algebraic landscapes, the two worked their way through very different disciplines via wave functions, Fourier transformations, fractional dimensions and logical connections, until they finally even visualised complex and irrational numbers as well as random processes and logical connections with their method.

The proceeds will go towards the establishment of the foundation "art meets science - Stiftung Herbert W. Franke".

"We honour our roots by publishing at Quantum Art MATH ART by Herbert W. Franke, the work of one of the founding fathers of computer art."

- Justin Aversano, Co-Founder Quantum Art

"It is a great honour to bring the visionary work of Herbert Franke to the blockchain for the first time in history. With the great attention generative art is receiving today through NFTs, Herbert Franke's work is more relevant than ever. It is inspiring to see how influential he is in the new art scene and that he is finally getting the recognition he deserves. We at Quantum are very proud to play a part in celebrating the pioneers and trailblazers who paved the way for digital art and crypto art."

- Rodolphe Ködderitzsch, Head of Digital Art and Crypto Art, Quantum

Launched in 2021 by Justin Aversano, Kris Graves, Alexx Shadow and Jonas Lamis, **Quantum Art** focuses on curating digital culture. Quantum works with established and emerging artists, dropping NFT Collections weekly and introducing curated art online and IRL to the NFT collector community.

The Quantum curatorial team is committed to presenting artists from diverse backgrounds and works that share a history of diversity and cultural significance. Quantum enables new artists to enter the crypto space and enjoy the financial freedom that allows them to create more artwork and give back to the world.

Information

OÖ Landes-Kultur GmbH is planning a publication in several parts on Herbert W. Franke's life's work. A MEDIA ROOM will show digital impressions of his work, while the ARCHIVE ROOM will document a selection of Franke's publications and articles.

On the occasion of the opening of the exhibition, a panel discussion entitled BACK TO THE FUTURE. THE POTENTIAL OF DIGITAL IN ART - THEN AND NOW. The guests: Susanne Päch for Herbert W. Franke, Kevin Abosch, Rafael Rozendaal, Georg Back, Genoveva Rückert and Christa Sommerer. The panel was moderated by Anika Meier. The written version of the panel can be found here.

Curators: Susanne Päch and Genoveva Rückert
Exhibition design: MOOI Design

Herbert W. Franke and Susanne Päch are available for interviews.

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You can find the press release and download photos at: https://www.ooekultur.at/presse

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