Since its launch in 2015 as an initiative of the European Commission, S+T+ARTS, innovation at the nexus of Science, Technology, and the Arts, has promoted the integration of artistic practices with advanced research and innovation. It has done so via the annual STARTS Prize honouring successful collaboration of artists and engineers, STARTS Residencies of artists in tech organizations, and STARTS Lighthouse Pilots that have made artists an integral part of their research.

NEAR + FUTURES + QUASI + WORLDS aims to emphasize the vital role that collaboration in scientific, technological, and artistic domains can play in furthering contemporary investigation and integrative forms of cutting-edge artistic creation. In its first iteration at STATE Studio Berlin in July 2020, NEAR + FUTURES + QUASI + WORLDS will feature a selection of artworks, objects, and documents highlighting the manifold scope of S+T+ARTS actors, activities, and collaboration networks. While many works in the show originate in S+T+ARTS programs such as Residencies, Lighthouse Pilots, Re-FREAM, and MindSpaces, others account for the vitality and global scope of S+T+ARTS’ annual Prizes.
Transcending punctual interaction, shared languages of experimentation emerge in common research environments. Every work in the show is a fragment of a newly organized system, a piece of a world-like sphere not fully formed or complete or fully real, but steadily emerging. By way of their visionary capacity and structural insight, these works place the viewer on the verge of reality and demonstrate the elasticity of limits. If the new is shaped by research and informed by experimentation, the selected projects readily approach what is or could be about to happen. They posit thresholds—unexpected expressions of what is to come. As capsules of an unfinished, truncated, propositional tomorrow, these works are an almost-here. In the form of robotic sculptures, 3D prints, bas-reliefs, digital animations, film, light, and machine work, they make potentiality manifest and claim the conceptual space of what may be close to happening.

NEAR + FUTURES + QUASI + WORLDS thus explores phenomena of reciprocal influence and cross-pollination between technology, science, and the arts, all at work in each of the selected projects, to open up new modalities for innovation and creation in the foundational spirit of S+T+ARTS.

Several thematic blocks structure the curatorial development of NEAR + FUTURES + QUASI + WORLDS, each of them functioning like a specific module that conceptually overlaps with the others and affords a multiplicity of readings for the whole.

Through the notion of statuary, as a crucial concept beyond Europe art history with many resonances beyond, NEAR + FUTURES + QUASI + WORLDS confronts classicism as it reappears, mutates, decomposes, and re-emerges in research-based art and collaborations with advanced technology today. The forms of statuary are not necessarily anthropomorphic or figurative, even though they may surround, expand, or replace the volume of generic human bodies. Rather, these forms seem to be the result of certain attitudes of material—uses of the pedestal, mutations of the torso, mannequin-like arrangements, abstract robotic dances, colourful synthetic protrusions. Since Antiquity, statues emblematize body qualities and highlight the dialectics between artifacts and living beings, representation, and flesh. So Kanno’s Senseless Drawing Bot, Egor Kraft’s Content Aware Studies, Iris van Herpen’s Magnetic Motion couture collection, Julia Koerner’s Digital Vogue research pushing toward an artificial fur or butterfly wing velvets. These works invite us to think at the intersection of historical time and multi-faceted, post-human thingness. They project new encodings of social memory, monumentality, corporeality, agency, and myth.

Unexpected tensions between time, timelessness, technology, and bare construction also appear in radically abstract kinetic devices such as Ralf Gelpand’s Hilbert Hotel, Refik Anadol’s Melting Memories, and Félicie d’Estienne d’Orves’s Martian Sun Series. In their four-dimensionality, these art works describe the apparently rhythmic patterns that structure autonomous worlds we encounter in fragments. There is a ticking, sliding, cyclical otherness in each of these art works, where the machine is a landscape and the landscape a machine. Also, at work in these worlds in progress is the merging of micro and macro scales. Like probes of exploded geographies, they inevitably make us think of enigmatic snow globes. In By the Code of Soil: (de)Compositions, by Kasia Molga & Scanner, and I’m Humanity by Etsuko Yakushimaru, the living appears as a generative element in the artwork that permeates the world beyond. Not coincidentally, sound is a key aspect of both these projects—as a haunting manifestation of life’s substrate as well as a translation of the world into genetic code. Meanwhile, sound fragments emerge in Forensic Architecture’s The Murder of Pavlos Fyssas to reveal the disturbing evidence of a political crime in contemporary Greece, the birthplace of classicism and the political laboratory of European post-rescue culture. Again, issues of monumentality, historicity, data landscape, re-emerge in the world-in-progress of concealed facts.

Each of these connected levels addresses a facet of the S+T+ARTS collaborative ecosystem without exhausting it. Modularity will allow a number of potential iterations, additions, and variations of the exhibition farther on, while central issues already appear in the project’s iteration at STATE Studio in Berlin. Additional sections are likely to emerge in future iterations of this curatorial endeavour, in order to shed light on other aspects of S+T+ARTS as a collaborative ecosystem.

Manuel Cirauqui, Curator
Ralf Baecker  
b. 1977 Düsseldorf, Germany  
Lives and works in Berlin

Ralf Baecker studied Computer Science and Media Art at the Academy of Media Arts Cologne. Since 2016 he teaches at the University of the Arts Bremen as Professor of Experimental Design of New Technologies in the Digital Media program. In his work he explores fundamental mechanisms of action and the effects of new media and technologies. He has been awarded multiple prizes and grants, including an honorary mention at the Ars Electronica in 2012 and 2014, and second prize at the VIDA 14.0 Art & Artificial Life Award. His work has been presented in international festivals and exhibitions, such as the International Triennial of New Media Art in Beijing, Künstlerhaus Wien, ZKM | Center for Art and New Media in Karlsruhe, Martin-Gropius-Bau in Berlin, WINZAVOD Center for Contemporary Art in Moscow, Laboral Centro de Arte in Gijón, and Malmö Konsthall.

Putting the Pieces Back Together Again (2018) is a complex system displaying a self-organizing and emergent behavior. A multiplicity of electro-mechanical actors, operating on a binary clockwise/counterclockwise direction, are let to form spontaneous patterns as they incessantly react to each other’s rotation. Thus their collective interaction enables the entire kinetic-sculptural device to act as an epistemological instrument, thanks to which dynamics of non-hierarchical and collective organization can be observed, contemplated, endlessly.

Refik Anadol  
b. 1985 Istanbul, Turkey  
Lives and works in Los Angeles

The media artist and director, Refik Anadol is recognized worldwide among the most important practitioners working with machine intelligence and parametric data sculpture today. He is the recipient of a number of awards, including Microsoft Research’s Best Vision Award, German Design Award, UCLA Art+Architecture Moss Award, University of California Institute for Research in the Arts Award, SEGD Global Design Awards and Google’s Art and Machine Intelligence Artist Residency Award. His site-specific audio/visual performances have been presented at Walt Disney Concert Hall, Hammer Museum, International Digital Arts Biennial Montreal, ZKM I Center for Art and New Media in Karlsruhe, Ars Electronica Festival in Linz, l’Usine in Genève, among many others.

Melting Memories is the title of a series of artworks realized by Refik Anadol in collaboration with the Neuroscape Laboratory at the University of California, a neuroscience center specialized in applying cutting-edge technology to study and improve brain functions. Data are collected through electroencephalography (EEG), and processed by the artist with custom made algorithms to create a visual rendition of the brain activities over time. Melting Memories intends to pose questions about the materiality of memories, and cognitive decay.
Félicie d'Estienne d'Orves
b. 1979 Athens, Greece
Lives and works in Paris

Félicie d'Estienne d'Orves is interested in the optical and acoustic sciences, as well as in astrophysics and the sciences of perception and cognition. Her immersive installations use a phenomenological approach to reality, they underscore the perception of time as a continuum. She works regularly with astrophysicists and planetary scientists, especially Fabio Acero at the AIM laboratory (CEA/Saclay), who specializes in supernova and high energies. Her work has been shown at the Centre Pompidou, the Nuit Blanche in Paris, the Sonic Acts in Amsterdam, the Watermans Arts Center in London, the Elektra Festival - BIAN in Montreal, the Maison des Arts of Créteil, the Nemo International Biennial of Digital Arts in Paris, the OCAT in Shanghai, the ICAS in Dresden, and the Aram Art Museum in Goyang.

Martian Sun Series (2019) is an invitation to contemplate an extraterrestrial horizon, a distant landscape, located thousands of millions of kilometers away. The research is part of a wider investigation conducted by the artist at LMD Laboratoire de Météorologie Dynamique (CNRS) in Paris. Depicting the topography of major sites on the planet Mars, the motorized light reproduces light intensity and the height of the sun on the horizon in real time at each of the sites based on prediction from the LMD Mars Climate Database Project.

Evelina Domnitch and Dmitry Gelfand
b. 1972, Minsk, Belarus +
b.1974, St. Petersburg, Russia
Live and work in The Hague

Evelina Domnitch and Dmitry Gelfand create sensory immersion environments that merge physics, chemistry and computer science with uncanny philosophical practices. Having dismissed the use of recording and fixative media, their artworks exist as ever-transforming phenomena offered for observation. The duo’s practice has emerged through unorthodox collaborations with pioneering research groups, including LIGO (Laser Interferometer Gravitational Wave Observatory), RySQ (Rydberg Quantum Simulator) and the EU Quantum Flagship. They are recipients of the Witteveen+Bos Award, Meru Art*Science Award, Japan Media Arts Excellence Prize, and five Ars Electronica Honorary Mentions.

About the Hilbert Hotel (2020), the artists write: “How can a fully occupied hotel of infinite scale continuously accommodate an infinite influx of new guests? David Hilbert was among a contingent of mathematicians, stretching back to Zeno, who pondered such questions of infinitesimal spatial granularity. Hilbert Hotel is a curvilinear ion trap that electrically levitates its myriad microscopic guests. These hollow glass microspheres float along startlingly square-shaped orbits, tracing the quadrupolar electric fields that keep them airborne.”
Forensic Architecture

Forensic Architecture (FA) is a research agency based at Goldsmiths, University of London. It undertakes advanced spatial and media investigations into cases of human rights violations, with and on behalf of communities affected by political violence, human rights organizations, international prosecutors, environmental justice groups, and media companies. Its work often involves open-source investigation, the construction of digital and physical models, 3D animations, virtual reality environments and cartographic platforms. Their work has been featured in international art and architecture exhibitions worldwide.

The Murder of Pavlos Fyssas (2018) documents Forensic Architecture’s research on a political crime that marked recent political history in Greece. Shortly after midnight on 18 September 2013, Pavlos Fyssas, a young anti-fascist rapper was murdered in his home neighbourhood of Keratsini, Athens. Both the killer and others who participated in the attack were members of the neo-Nazi organisation Golden Dawn. Forensic Architecture was commissioned by the family of Fyssas and their legal representatives to reconstruct the events of the night from audio and video material made available to the court. The video investigation, and the accompanying text report, was presented to the courtroom in Korydallos, Athens, where the ‘Golden Dawn trial’ took place.

So Kanno

b. 1984, Japan
Lives and work in Berlin

Trained at the Musashino Art University, as well as, the Institute of Advanced Media Arts and Sciences (IAMAS) in Japan, So Kanno has developed an art practice that challenges, often with a touch of irony, some aspects related to technology today, such as the relation between signal and noise, error and glitch. His work has been the subject of multiple presentations including the Japan Media Art Festival Sukagawa in Fukushima, the Ars Electronica in Linz, the 4th Istanbul Design Biennial, the Grand Palais in Paris, the Nemo International Biennial of Digital Arts in Paris, at Fondation Vasarely, Aix-en-Provence and at the YCAM in Yamaguchi. He is the recipient of many prizes and special mentions such as the Japan Media Art, Ars Electronica, among the others. He is also lecturer at the Zokei University Media Design and the Polytechnic University both in Tokyo.

Senseless Drawing Bot (2011-ongoing), made in collaboration with Takahiro Yamaguchi, is a self-propelling robot that produces a form of chaotic, abstract graffiti drawing using a double pendulum system. As the robot moves from side to side of the wall, its shaking arm activates a series of rhythmic, yet unpredictable paint strokes. The operations of this painterly machine are not without a sense of dance, even a certain punkish flair.
Julia Koerner received her master’s degrees in architecture from the University of Applied Arts in Vienna and the Architectural Association in London. She works at the confluence of architecture, product design, and fashion design and is internationally recognized for design innovation in 3D-Printing. She is the founder of JK Design specializing in digital design. Some of her most recent collaborations include Haute Couture Houses for Paris Fashion week and 3D printed costumes for Hollywood entertainment productions such as Marvel’s Black Panther in collaboration with Ruth Carter, which won an Oscar for Best Costume Design. Museums and Institutions which have exhibited her work include the Metropolitan Museum of Art in New York, the Art Institute of Chicago, the High Museum of Art in Atlanta, the Philadelphia Museum of Art, the Palais des Beaux Arts in Brussels, Museum of Applied Arts MAK Vienna, Ars Electronica in Linz, among others.

Julia Koerner’s design investigation focuses on digitally translating natural patterns into algorithms and advancing the digital workflow from 2D to 3D. The multicolored wings of the Madagascan Sunset Butterfly are scanned and printed without any support material and directly on fabric in color. The result is a visually compelling spatial formation that express itself fully when the piece is worn by a living body. The Setae jacket (2019) is part of Digital Vogue, an ongoing project developed by Koerner in collaboration with the tech partners Stratasys, Profactor, Haratech, and FAT in Linz.

Egor Kraft works across media, with a practice that involves artificial information systems, computational technologies, films, often in conjunction with traditional media. He acquired his education from the Gerlesborg School of Fine Art (Sweden), the Moscow Rodchenko Art School, the Academy of Fine Arts Vienna, the Central Saint Martins College in London, and ‘The New Normal’ at Strelka Institute, Moscow. His work has been exhibited recently at Ars Electronica in Linz, Open Codes at ZKM | Center for Art and New Media in Karlsruhe, 5th Ural Industrial Biennial, 5th and 2nd Moscow International Biennale for Young Art, WRO Biennial in Wroclaw, IMPAKT Festival in Utrecht, Vienna Contemporary, Manifesta X, the Nemo International Biennial of Digital Arts in Paris, 1st Kiev Biennale, among others.

The series titled Content Aware Studies (2019) examines what artistic, technical and philosophical capacities machine learning technologies hold, both as means for automatic historical investigation and synthetic knowledge production. In collaboration with data scientists from the Strelka Institute and the University of Southampton, Egor Kraft employed artificial neural networks to replenish lost fragments of sculptures and friezes of classical Antiquity.
Kasia Molga  
*b. Poland  
Lives and works in Margate

Kasia Molga is a design fusionist working at the intersection of technology, arts, science and engineering. Through her installations, audiovisual performances or coded multimedia sculptures, she creates narratives about how emerging and ubiquitous technologies impact our understanding of the natural environment. She exhibited and presented internationally, most notably: Centre Pompidou in Paris, Tate Modern in London, V&A Museum in London, Ars Electronica in Linz, TRANSNATURAL in Amsterdam, Meta.Morf, ISEA in Istanbul, Translife Media Arts Triennial in Beijing, MIS in São Paulo, V2_ Institute for the Unstable Media in Rotterdam, and she is a recipient of such international awards as Wellcome Trust Award, Ars Electronica, Creative Industries, European N.I.C.E Award, RESHAPE, and LES RESPIRATIONS.

Robin Rimbaud aka Scanner  
*b. 1964, London  
Lives and works in London

Scanner’s work traverses the experimental terrain between sound and space connecting a bewilderingly diverse array of genres. Since 1991 he has been intensely active in sonic art, producing concerts, installations and recordings, the albums Mass Observation, Delivery, and *The Garden is Full of Metal* hailed by critics as innovative and inspirational works of contemporary electronic music. To date he has scored 65 dance productions, including the hit musical comedy Kirikou & Karaba Narnia, Qualia for the London Royal Ballet, and the world’s first Virtual Reality ballet, Nightfall, for Dutch National Ballet. More unusual projects have included designing sound for the Philips Wake-Up Light, the re-opening of the Stedelijk Museum, Amsterdam, and the new Cisco telephone system used in many offices around the world. Committed to working with cutting edge practitioners he collaborated with Bryan Ferry, Wayne McGregor, Mike Kelley, Torres, Michael Nyman, Steve McQueen, Laurie Anderson and Hussein Chalayan, amongst many others.

*By the Code of Soil: (de)Compositions*, by Molga and Scanner, echoes the relentless activity of an accumulation of layers of natural soil inside a column-like box made of plexiglas and equipped with sensors. The piece is the result of the residency undertook by Molga at GROW Observatory, a research project that aims at monitoring the environment on a planetary level. Working closely with Scanner, Molga devised a system where the earthworms living in the soil actively shape the latter’s structure and produce an infinitely moving soundscape.

Iris Van Herpen  
*b. 1985, Wamel, The Netherlands  
Lives and works in Amsterdam

Iris van Herpen is a Dutch fashion designer who is internationally recognized for her pioneering use of 3D printing as a construction technique, as well as aesthetic principle. Since her first show in 2007, she has been preoccupied with inventing new forms and methods of sartorial expression by combining the most traditional and the most radical materials and garment manufacture methods into her unique vision. Her work has been featured in various museum exhibitions, including a major retrospective that toured the United States and Canada from 2015 to 2018. Van Herpen’s creations have been exhibited at the Victoria & Albert Museum in London, the Cooper Hewitt Museum in New York, and the Palais de Tokyo in Paris, among others.

In the *Magnetic Motion* collection (SS2015), Iris van Herpen explores the interplay of natural forces and digital technologies. The inspiration for this collection was a visit at the CERN’s Large Hadron Collider, whose magnetic field exceeds that of Earth by twenty thousand times. The Canadian architect Philip Beesley and the Dutch artist Jolan van der Wiel, both collaborated with Iris van Herpen in the completion of this project, which was awarded the STARTS Prize 2016 in the Artistic Research category.
Etsuko Yakushimaru is a Japanese singer, producer, composer, lyricist, arranger, and visual artist. She is broadly active both in the pop industry, and the experimental music field, as solo artist or with her band, Sōtaisei Riron. Her approach is characterized by interdisciplinarity, she created projects that involves satellite, biological data and biotechnology, song-generating robot powered by artificial intelligence. She has worked on numerous collaborative projects with renowned artist such as Ryuichi Sakamoto, Jeff Mills, Matthew Herbert, my bloody valentine, Christian Fennesz, Thurston Moore, Cornelius, and Arto Lindsay. Her work has been presented in prestigious art events worldwide. Among them, the Mori Art Museum, Toyota Municipal Museum of Art, Yamaguchi Center for Arts and Media, Ars Electronica Festival, Bozar Electronic Arts Festival, 21st Century Museum of Contemporary Art, Kanazawa, National Museum of Nature and Science, Tokyo.

I’m Humanity (2018) is the first song in human history to be released as a genetically-modified microorganism alongside the CD and digital music formats. Yakushimaru’s work of “post-humanity music” used the nucleic acid sequence of Synechococcus, a type of cyanobacteria. The musical information was converted into genetic code to create a long DNA sequence, which was artificially composited and incorporated into the chromosomes of the microorganism, which is known for its ability to continuously self-replicate. Even if humanity as we know it becomes extinct, the organism will live on transmitting the music through its genetic code.

About S+T+ARTS

S+T+ARTS is an initiative of the European Commission under the Horizon 2020 Research and Innovation program. It was launched in 2015, following up on findings of previous activities funded by the European Commission such as ICT&Art 2012, FET-ART, ICT ART CONNECT 2013, and ICT ART CONNECT Study, whose results demonstrated the worldwide emergence of communities producing hybrid collaborations among science, technology and the arts.

S+T+ARTS Prize awards the most pioneering results in the field of co-creativity and innovation at the crossings of science, technology and the arts:

- Grand Prize, Artistic Exploration Awarded for artistic exploration and art works where appropriation by the arts has a strong potential to influence or alter the use, deployment or perception of technology.
- Grand Prize, Innovative Collaboration Awarded for innovative collaboration between industry or technology and the arts that opens new pathways for innovation.

The S+T+ARTS Residencies program aims to support and fund artistic residencies that bring original artistic contributions to technology-based projects. During each Residency, a Tech Partner collaborates with an Artist, leading to the creation of an original artwork, and the development of the innovative aspects of the tech research. A grant is awarded to the Artist of each Residency as a contribution to their involvement in the residencies program and can also be supported by a Producer.

S+T+ARTS Lighthouse Pilots support research seeking radically novel technology solutions to major challenges for industry and society, in close collaboration with artists. Re-FREAM enables co-creation by scientists and artists in urban environments by offering facilitation services, access to know-how and technologies as well as mentoring. It designs a sustainable, open innovation platform with researched technologies, patterns, concepts, learnings for further development of fashion of the future. The central objective of MindSpaces is to create the tools and develop the solutions for adaptive and inclusive spaces that dynamically adapt to emotional, aesthetic, and societal responses of end users, creating functionally and emotionally appealing architectural design.

For the exhibition NEAR + FUTURES + QUASI + WORLDS, S+T+ARTS partners with STATE Studio, a Berlin-based initiative that builds cultural programs at the intersection of science, art, and society to help forward ideas for a sustainable future.
Exhibition Checklist

Etsuko Yakushimaru
+ I’m Humanity, 2016. Set of 5 CDs, printed lyrics, video clip

ALL WORKS COURTESY THE ARTISTS

Dialogues

July 2 Julia Koerner + Refik Anadol
Agnieszka Kurant + Luc Steels

July 3 Evelina Domnitch + Dmitry Gelfand
+ Tommaso Calarco

July 9 Kasia Molga + Pavlos Georgiadis

July 23 Félicie d’Estienne d’Orves + Fabio Acero

July 26 Egor Kraft + Jussi Parikka

Colophon

This digital brochure has been produced to document the exhibition NEAR + FUTURES + QUASI + WORLDS held at State Studio, Berlin, from July 2 through 26, 2020. This project is organized by S+T+ARTS and curated by Manuel Cirauqui in collaboration with Silvana Fiorese.

Graphic design by Álvaro Cánovas, Júlia Merino, and Alexandre Viladrich x EINA / IDEA. Original typeface design was made after the fragmentation, decomposition, permutation, and speculative redistribution of graphics operating in the starts.eu website. This typographic development replicates aspects of the exhibition’s core concept—inimience, unfinishedness, experimentation, accumulation, momentum, tectonic—understood also as constitutive elements to the spirit of perpetual research and cross-pollination fostered by S+T+ARTS.