

PRESS RELEASE

ZKM | Center for Art and Media Karlsruhe hosts »Repairing the Present :RETOOL«, an exhibition of the European Commission initiative S+T+ARTS that explores the collaborative potential between science, technology and the arts.

New exhibition
»Repairing the Present :RETOOL«
18.11.2022 – 18.12.2022

S+T+ARTS, a European Commission initiative that explores the collaborative potential between science, technology and the arts, announces the opening of :RETOOL for Friday, November 18, 2022, 6pm-10pm at ZKM | Center for Art and Media in Karlsruhe, Germany. Curated by Manuel Cirauqui, the exhibition represents the third iteration of the series Repairing the Present :REWORLD, :REWILD and :RETOOL. (18 November – 18 December 2022).

Repairing the Present is a cross-disciplinary S+T+ARTS project launched in June 2021 by 12 Regional S+T+ARTS Centres: Snowball (BE), MAXXI Museum (IT), STATE (DE), Onassis Stegi (EL), In4Art (NL), MEET (IT), CCCB (ES), Ars Electronica (AT), Sony CSL Paris (FR), Kersnikova (SI), CYENS (CY) and Art Hub Copenhagen (DK).

In February 2022, as part of *Repairing the Present* 21 artists were selected to take part in 21 thematic S+T+ARTS residencies reflecting on challenges related to achieving the EU Green Deal or a New European Bauhaus s. All resulted in creative and interdisciplinary initiatives that propose sustainable practices for the future of the continent. The projects were conducted locally, involving different scientific and industry partners to collaborate with the resident artists and the S+T+ARTS Regional Centers.

In *Repairing the Present :REWORLD, :REWILD and :RETOOL* art-driven collective responses are presented to the current and future emergencies with critical implications at social, environmental, and technological levels. Built upon powerful calls to action that reflect today's growing challenges :RETOOL present compelling, transversal research in art, science and technology as developed over the course of the *Repairing the Present* residencies. Each exhibition is presented in a unique way and their design takes into account the context of each chosen venue.

October 2022

Exhibition
Repairing the Present :RETOOL

Exhibition opening
Fri, 18.11.2022

Exhibition period
Fri, 18.11.2022 – Sun, 18.12.2022

Location
Atrium 8+9, 1st floor

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Baden-Württemberg

MINISTERIUM FÜR WISSENSCHAFT, FORSCHUNG UND KUNST

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"This triptych of exhibitions provides a modular narrative to navigate both the diversity of Repairing the Present's residency projects and the general problematic around contemporary urgencies -- in other words, our need to confront them hands-on but with new knowledge and inventive forms of relation. Under anthropocenic, critical conditions -- such as global warming and related extreme phenomena, pandemic outbreaks, scarcity of resources, persisting war and ecocide -- we need to bring our notion of collaboration beyond the human, and reclaim, remap, the technologies available today and in the near future. The goal is for all of us to achieve more harmonious, caring and sustainable forms of living and becoming. Artists and studios in Repairing the Present show an incredible capacity to carry out a multiplicity of efforts in such different domains as epidemiology, bioengineering, waste policies, cultural critique, new materials, and crypto, to just name a few. Every exhibition in the :REORLD :REWILD :RETOOL cycle will be an opportunity to experience the development of their research and to find inspiration in direct contact with the works." **The curator - Manuel Cirauqui.**

In *:RETOOL* artworks are questioning the use of blockchain technology, propose alternative human - non-human collaborations, investigate the future potential of DNA data storage on an urban level, find ways to become resilient in local, green energy production, explore paths to progress to purify water and suggest open source platforms for DIY empowerment of youth sustainability actions. All these directions show paths to new collaborations, research, innovation spill-overs or participatory trajectories.

Artists included in the exhibition: Grow Your Own Cloud, Markus Jeschaunig, Hypercomf, Adriana Knouf, Lugh O'Neill, Olga Kisseleva, Studio Lapatsch | Unger and Studio Johanna Schmeer, Unit Lab, Wassim Z. Alsindi & 0x Salon.

:RETOOL follows *:REORLD* at Meet Digital Culture Center in Milan, Italy (4–30 October), and *:REWILD* at MAXXI, the National Museum of 21st Century Arts in Rome, Italy (15 October–13 November).

For press inquiries, please contact:

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This exhibition opens at **ZKM | Center for Art and Media Karlsruhe**. ZKM | Center for Art and Media is a cultural institution that is unique in the world. With its art collection, publications, archives, and artistic, scholarly and scientific research on the electronic arts, the ZKM stands for a program of interdisciplinary projects and international collaborations. In its exhibitions, symposia, concerts, and workshops, the ZKM communicates the theoretical discourses of philosophy, science, technology, politics, and economics from a contemporary artistic perspective.

“It is paramount that we, both as individuals, business and as communities, engage in societal challenges in any way possible. The S+T+ARTS principle, bringing together the different yet complementary perspectives, does exactly that. Starting from the challenges of the European Green Deal, having artists collaborate with state-of-the-art tech entrepreneurs and scientists, fosters innovative thinking & the development of promising ideas & prototypes. We hope to instil this collaborative and out-of-the-box mindset in everyday practice and businesses all over Europe. So we invite everyone, small and big alike, to act.” **Alexandra Vanhuysse, cofounder Snowball & coordinator Regional STARTS Centers Repairing the Present.**

About Manuel Cirauqui:

Manuel Cirauqui is a writer and curator. A regular collaborator of S+T+ARTS in an expert capacity since 2019, he is also the founding director of Eina Idea, a think tank and programming platform associated with EINA University School of Design and Art in Barcelona, where he has led projects such as *Metro Mudra* (2020), *Anthropologies of the Black Box* (2021), *SYNX* (2021), and the ongoing series of site-specific interventions *Ambushes* (2021-present). Since 2016, Cirauqui has worked as curator at the Guggenheim Museum Bilbao, where he oversees its Film & Video exhibitions programme, including solo shows by Amie Siegel, Michael Snow, Javier Téllez, Allora & Calzadilla, Jesse Jones, Alex Reynolds, Sharon Lockhart, Cecilia Bengolea, Monira Al Qadiri, and The Otolith Group, among others. Other major exhibitions at Guggenheim Bilbao include *June Crespo. Strelitzia* (forthcoming); *Architecture Effects* (with Troy Conrad Therrien, 2018); *Henri Michaux. The Other Side* (2018); and *Anni Albers. Touching Vision* (2017); as well as the two-part exhibition *Artaud 1936* at the Museo Tamayo in Mexico City (2018).

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Artists and projects included at *:RETOOL* (ZKM | Center for Art and Media Karlsruhe)

Grow Your Own Cloud, *Urban Data Forest*

Grown Your Own Cloud -artists duo Monika Seyfried (PL) and Cyrus Clarke (UK/FR)- presents *Urban Data Forest*, a project that provides ways to store and retrieve information from plants on site, in the city. It explored a possibility of how this technology could transform urban spaces into Universal Biological Cloud Facilities. The project investigates in depth, how technology can utilise plants for data storage and regenerative green data infrastructure. It proposes two Urban Data Forests: the Breathing Museum and the Living Archive. The project was conducted in collaboration with engineering firm Witteveen+Bos and supported research into an environmental vision for the city of The Hague (NL) in 2050.

Markus Jeschaunig, *Urban Climate Oasis Milano*

Urban Climate Oasis investigates lost energy potentials in cities, taking Milan as an experiment. Using data collected by the Italian research institution Human Technopole in Rho, Milan on energy usage throughout the year, the work highlights how waste heat is still released "unused" from many technical facilities in urban areas. *Urban Climate Oasis Milano* proposes a way to use the waste energy by installing a temporary greenhouse bubble (made out of an an ETFE membrane) at the facade of the building, in which micro algae grow in daylight conditions during the winter powered only by waste heat. The work presented in *:RETOOL* shows a scaled version of the *Urban Climate Oasis* algae prototype for indoors. The project intends to involve the general public in the work of scientists and demonstrate new modes of action. It demonstrates circular material loops in an artistic way and is inviting people to take in their own environmental action.

Hypercomf, *Film Seed Festival*

Hypercomf, Ioannis Koliopoulos (GR) and Paola Palavidi (GR), presents *Film Seed Festival*, a farmer-grown, crop-powered, nomadic Film Festival, set up in different agricultural locations each year. The Festival preparations begin with the cultivation of any of a wide choice of edible, oil-producing crops depending on the location's climate and soil parameters. After harvest, part of the produced crop is processed to extract its oil content and, following a transesterification process, turned into biodiesel to power the festival with electricity. The rest of

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the produced crop is cooked to provide the festival attendees with free cinema snacks. The farmer is provided with a toolkit of Smart Agriculture technology, including soil and weather sensors to aid in the production of optimum crop yield, as well as a generator, film projector, projection screen and guidance in regards to organising a film festival and the conversion of plant oil to biodiesel. The Festival is set up in the same field that was cultivated to provide the different types of energy that power it and the showcased films are picked by a "jury" from the local community. Film Seed Festival 2022 is powered by peanuts and takes place in "Livadi" on Tinos island, Greece.

Olga Kisseleva, *Cities Live Like Trees*

Olga Kisseleva (FR) presents *Cities Live Like Trees*, an artwork that centres on the relationship between trees and cities, their resemblance and potential for cooperation. That artist analysed several layers of city data to form a city map, which is a replica of trees \ living in a city, inhabitant's mobility patterns, and citizen's mapping the information about the city. Through overlapping these layers of the data, she searches for new ways to integrate trees into the cityscape and maintain the city structure alive. The piece identifies the key trees in the city, and runs algorithms to identify shortest and greenest journeys thus highlighting the arborescent structure of city mobilities to calculate green index for each trajectory of citizens. This work is in line with Leonardo da Vinci's research into arborescent structures to estimate how the flows are distributed in the tree structure, and define the law of the square root, which can be applicable to flows in a city as well.

Adriana Knouf, *TX-2: MOONSHADOW*

Adriana Knouf, PhD (NL/US) works as an artist, writer, and xenologist, focusing on topics such as wet media, space art, and queer and trans futurities. *TX-2: MOONSHADOW* is an experiment in speculative satellite construction. It shows that space missions can be constructed for queer, post-colonial futures, contrary to contemporary commercial, military, and expansionist ends. Consisting of a handmade solar sail, custom 6U cubesat covered in protective sigils for transgender and queer joy, and a sculpted "meteorite" that contains lichen-human hybrid structures, *TX-2: MOONSHADOW* draws upon the history of transgender desires for extraterrestrial encounters and suggests possibilities for non-human experiences of outer space.

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Lugh O'Neill, *KARST*

KARST by Lugh O'Neill (IE) is a spatial sound composition which tells a story about cultural engagement with acoustic spaces and habitats. In collaboration with other performing artists, Lugh creates a composition, presented as video and 3D spatial sound, which builds a narrative around a selection of spaces, selected for their acoustic qualities and cultural significance. The composition, recorded and performed on location — allowing for an artistic and performative interaction with the locations — is then presented within an acoustically designed exhibition space. This approach is inspired by accounts of various cultural uses of sound, spoken or musical, as a means to analyse and contextualise environments.

Studio Lapatsch | Unger and Studio Johanna Schmeer, *Bodies of Water*

Bodies of Water, by design duo Anja Lapatsch (DE) and Annika Unger (DE) from Studio Lapatsch | Unger in collaboration with Studio Johanna Schmeer (DE), is a geohydrological investigation into Berlin's regional groundwater systems and their specific qualities and challenges. The project explores the complexities that lie beneath the city, providing artefacts that allow for a new perspective onto the groundwater reservoir shapes and geological elements that impact our everyday lives but often remain invisible. The first part of the project is based upon state-of-the-art scientific research into groundwater, from which Berlin receives almost 100% of its drinking water, whilst the second gives an insight into the aquifers beneath the earth's surface. The artwork uses specific rocks from the geological layers beneath the city of Berlin to change the water quality of other waters into water, which has a mineral content and taste similar to Berlin water.

Unit Lab, *Green Club*

Unit Lab is the creative partnership between Cindy Strobach (DE) and Mike Vanis (GR). Based in South London they design objects, installations, and workshops that bridge science, art, and the natural world. In *Green Club* they explore how circular economy can be introduced in the Greek school curriculum through mixing science with art and making. During the pilot after-school *Green Club* in May, creatives and experts ran 6 different workshops spanning multiple sustainability subjects. Through hands-on practical workshops, students explored circular futures in their own context making wind

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turbines, environmental data sensors, upcycled objects and shelters for animals. Throughout their residency, Unit Lab worked closely with teachers and experts in the field of education and sustainability to develop a platform that teachers can use to run workshops. Additionally, students can share their creations and participating schools can measure their success by collecting data and sharing it on the environmental data map. The platform is free to use and Unit Lab will continue to contribute workshops beyond the time of their residency making a lasting impact by helping schools become catalysts for change.

Wassim Z. Alsindi & 0x Salon, The Black Hole of Money

Wassim Z. Alsindi (UK/DE/IQ) is the founder and host of The 0x Salon (UK/DE), which conducts experiments in post-disciplinary collective knowledge practices. For :RETOOL, Wassim Z. Alsindi (UK/DE/IQ) and The 0x Salon (UK/DE) created a satirical play following zealous ideologues, implacable antagonists, self-important academics, and weary time-travellers as Bitcoin's proof-of-work lays waste to the planet. Wassim Alsindi and the 0x Salon's residency benefited from a partnership with the European Blockchain Center (Copenhagen, Denmark) and Click Festival (Helsingør, Denmark).

About S+T+ARTS:

S+T+ARTS stands for Science + Technology + Arts. Launched in 2016, by the European Commission, the initiative explores the potential of exchange between these three different fields by focusing on projects that strive to master the social, ecological and economic challenges that Europe is facing or will be facing in the near future. **S+T+ARTS** is driven by the conviction that, the combination between artistic viewpoints, science and technology opens valuable perspectives for research and business through a holistic and human-centred approach. The initiative provides funding for projects that offer artists the opportunity to take part in innovation and research efforts that bridge the gap between arts, science and technology. **S+T+ARTS** is sustained by the following pillars that address the different dimensions of the initiative:

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- Prizes: annual awards for pioneering collaborations at the nexus of science, technology and the arts;
- Lighthouses: research programmes that address specific challenges;
- Academies: education programmes for children and young adults;
- Regional Centres: projects expanding the S+T+ARTS initiatives on a local level;
- Residencies: cross-disciplinary projects that integrate the arts in the development of new technologies and innovation.

About the partners in Repairing the Present:

In Repairing the Present, 12 Regional S+T+ARTS Centers from 11 countries join forces to think globally but act locally by defining challenges that need to be urgently addressed within their localities. These centres come from artistic, scientific and technology background: Snowball (Be), MAXXI Museum (IT), Art Hub Copenhagen (DK), STATE (DE), Onassis Stegi (GR), In4Art (NL), MEET Digital Culture Center (IT), CCCB (ES), Ars Electronica (AT), Sony CSL Lab (FR), Kersnikova (SI), CYENS Centre of Excellence (CY).

:REORLD

MEET Digital Culture Center, Milan, Italy (4 - 30 October)

:REORLD addresses world-building as a core activity in advanced digital culture—an emerging domain of constructed reality that is starting to face its own sustainability challenges and contradictions. As we move in and out of metaverses under construction, mixed realities (XR) reveal an unparalleled potential to provide critical visualisations of ecosystems outside our bodies and also to map out the emotional and nervous entanglements inside of them. Likewise, :REORLD examines the urgency of re-materialization.

Featured artists: Wassim Alsindi and Ox Salon, Kat Austen and Fara Peluso, Samira Benini Allaouat, Felix Gaedtke, Joseph Hovadik, Studio Lapatsch Unger & Johanna Schmeer, Studio Above & Below, and Sissel MarieTonn.

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:REWILD

MAXXI, the National Museum of 21st Century Arts, Rome, Italy (15 October - 13 November)

:REWILD addresses the urgency of inter-species cooperation and our necessity to restore wild patterns in tamed ecosystems. Understood as an assemblage of diverse viewpoints and speculations, the exhibition emphasises possible contaminations of natural and synthetic, artificial and organic, animal and mineral realms, toward renewed forms of becoming in the Anthropocene. The driving force of **:REWILD** is the urgency to decolonize nature but also future ecosystems that are yet in a terraforming stage. This exhibition has been conceived for MAXXI, the National Museum of 21st Century Arts in Rome, and reflects the institution's vocation as a laboratory for cultural experimentation and innovation.

Featured artists: Samira Benini Allaouat, Penelope Cain, David Shongo and Filip Van Dingenen, Susi Gutsche, Olga Kisseleva, Adriana Knouf, Lugh O'Neill, and Studio Lapatsch Unger & Johanna Schmeer.

»Repairing the Present« is a European project which has received funding from the European Commission's Directorate-General for Communications Networks, Content and Technology under grant agreement LC01641664.

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